RECLAMATION

Managing Water in the West

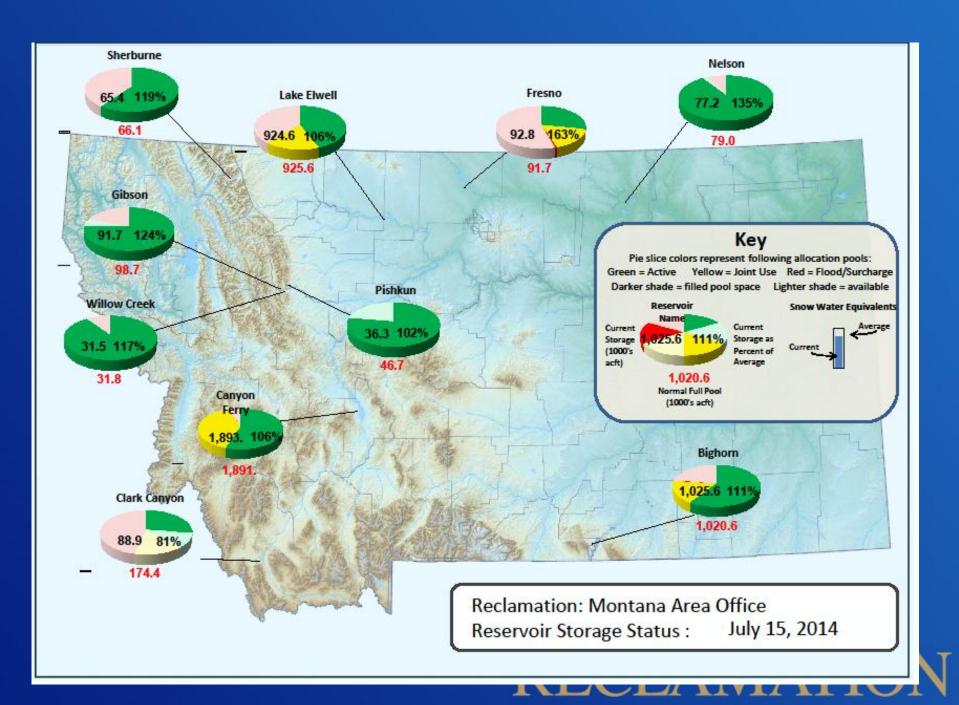
NWS –River and Reservoir Status Briefing

RESERVOIR AND RIVER OPERATIONS

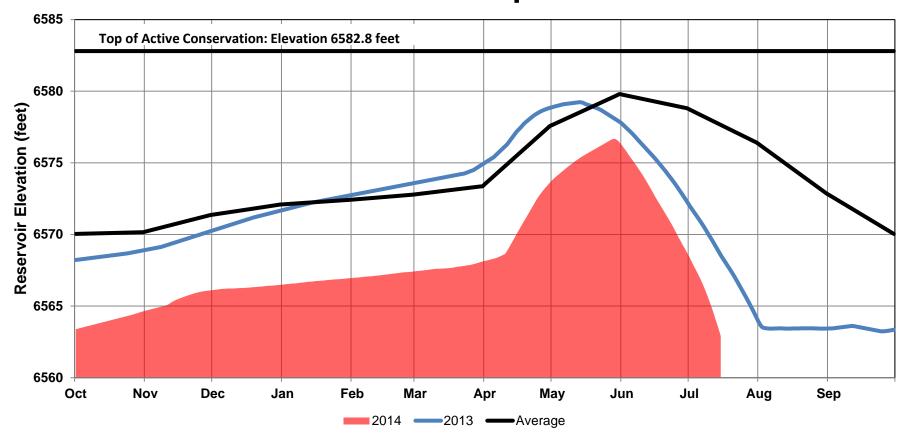
Montana Area Office Billings July 16, 2014

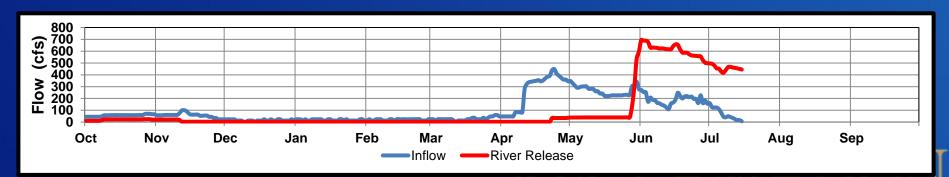


U.S. Department of the Interior Bureau of Reclamation

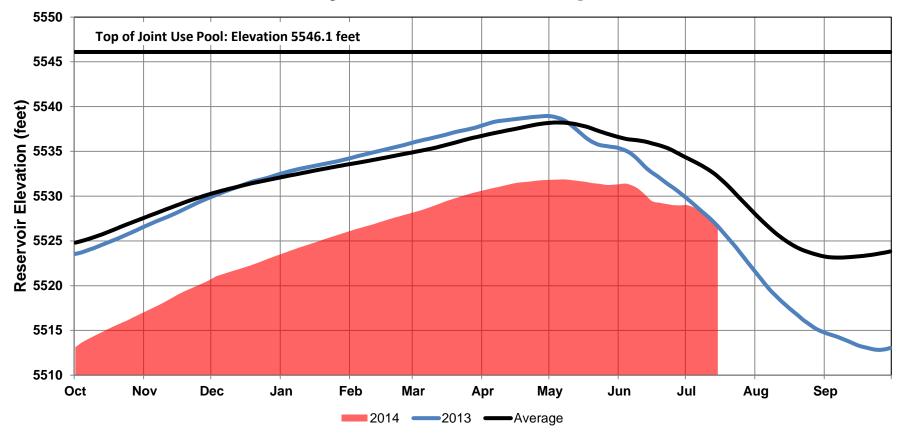


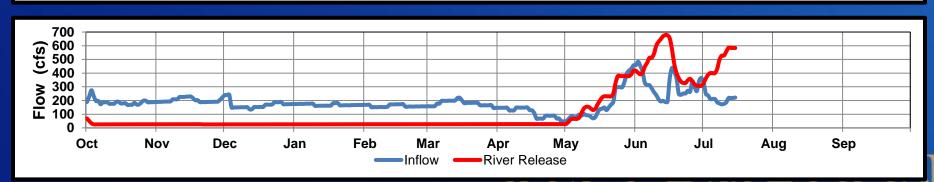




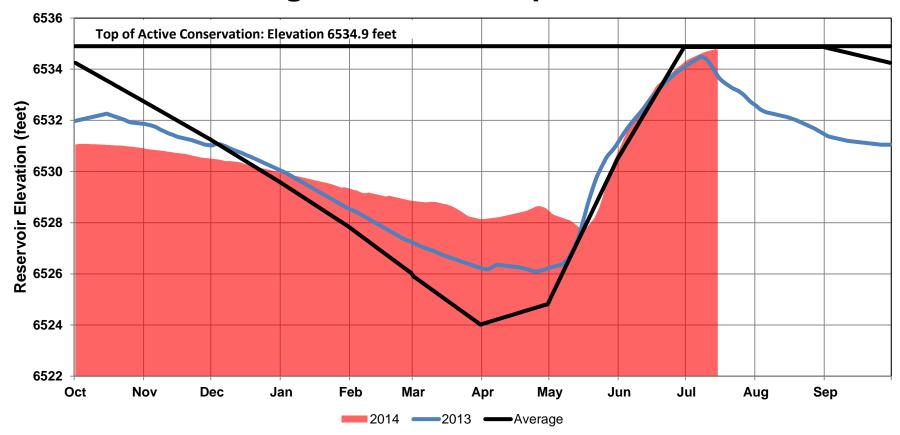


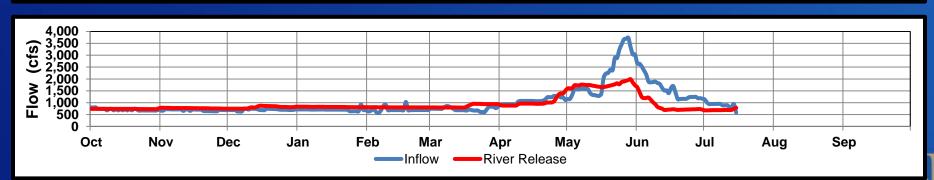
Clark Canyon Reservoir Operations



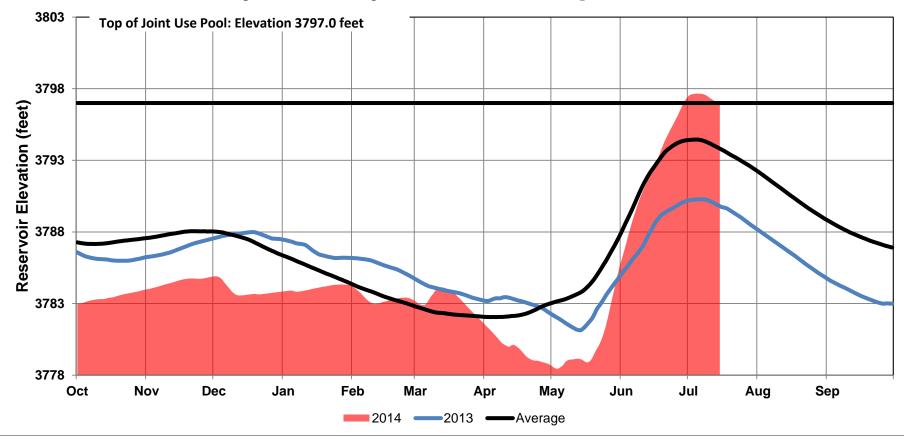


Hebgen Reservoir Operations

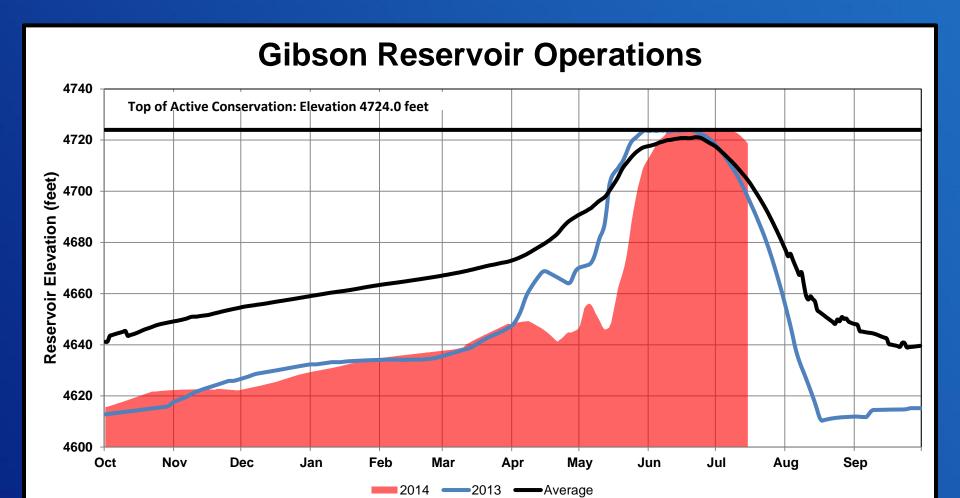


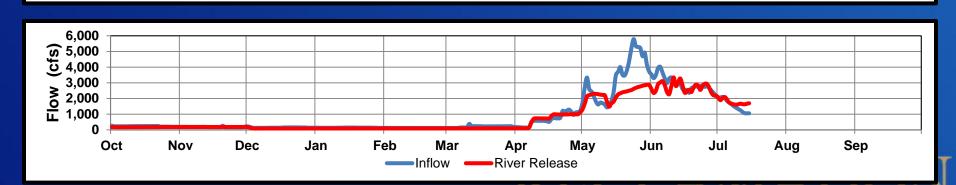


Canyon Ferry Reservoir Operations

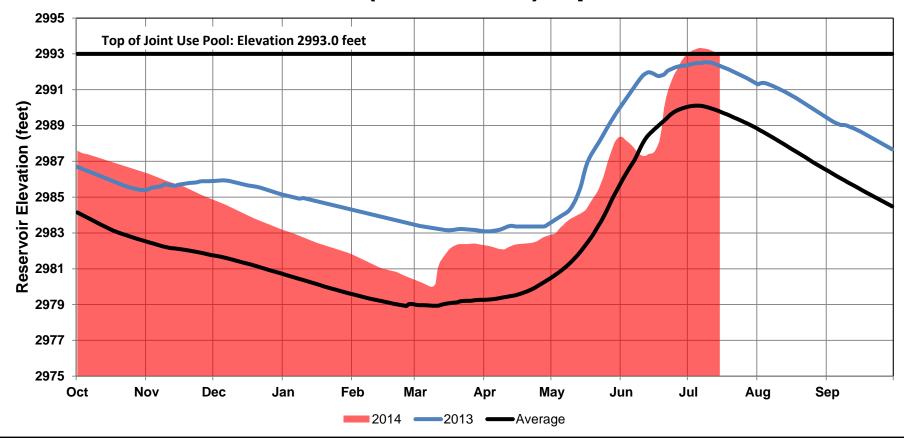


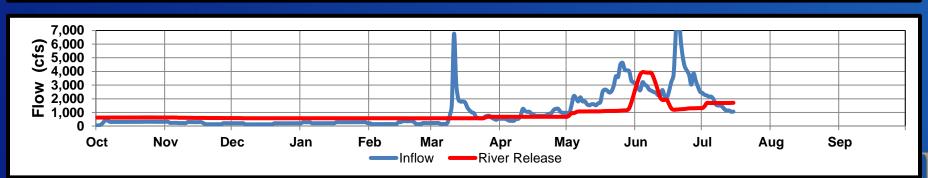




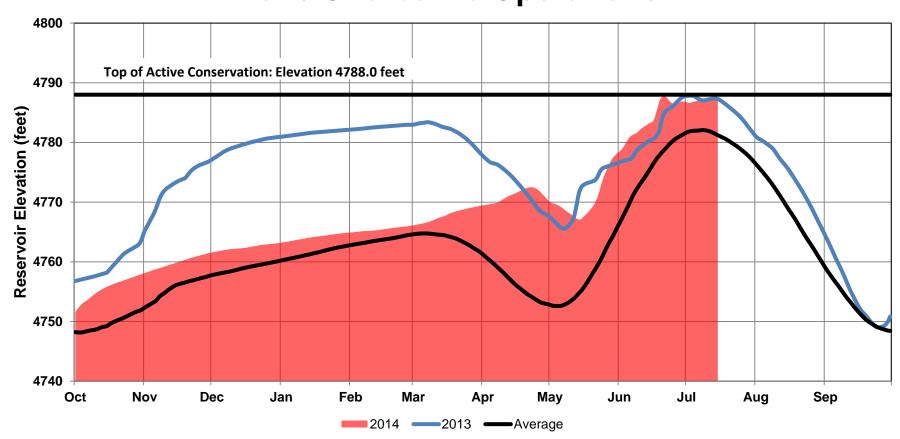


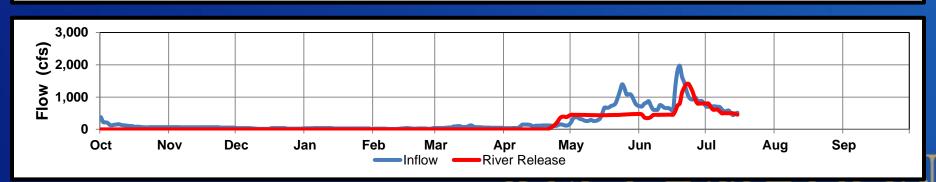
Lake Elwell (Tiber Dam) Operations



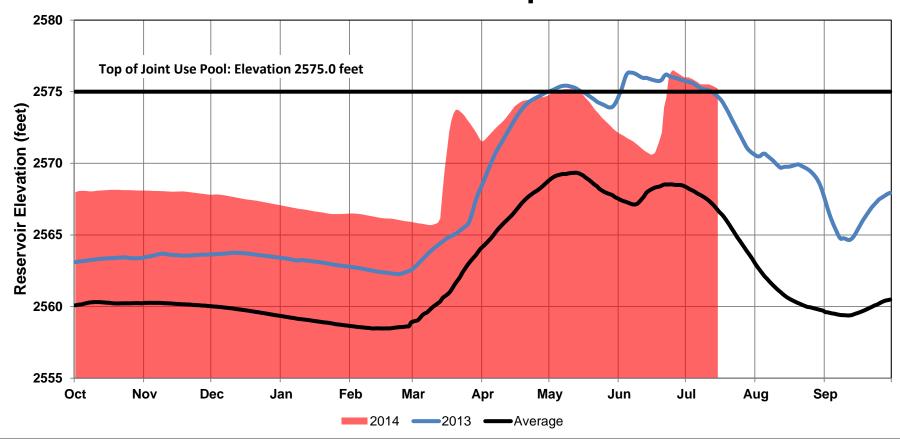


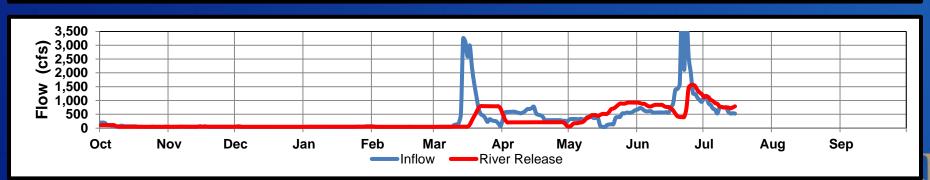
Lake Sherburne Operations





Fresno Reservoir Operations





Summary of Reservoir Conditions

- All reservoirs were filled except for Clark Canyon and Lima.
- Late June precipitation events caused many reservoirs to rise above full pool therefore release were also increased.
- All inflows are at or above average, except for Clark Canyon and Lima.
- Operational outlooks are favorable to maintain desired river fishery flows and reservoir elevations for recreation.

RECLAMATION

Reclamation's Internet Website

http://www.usbr.gov/gp/hydromet/

- near real-time data available through the HYDROMET data system
- summaries and plots of historical data
- annual reservoir operating plan publication
- monthly water supply reports
- project data
- snow plots
- links to related internet sites

RECLAMATION

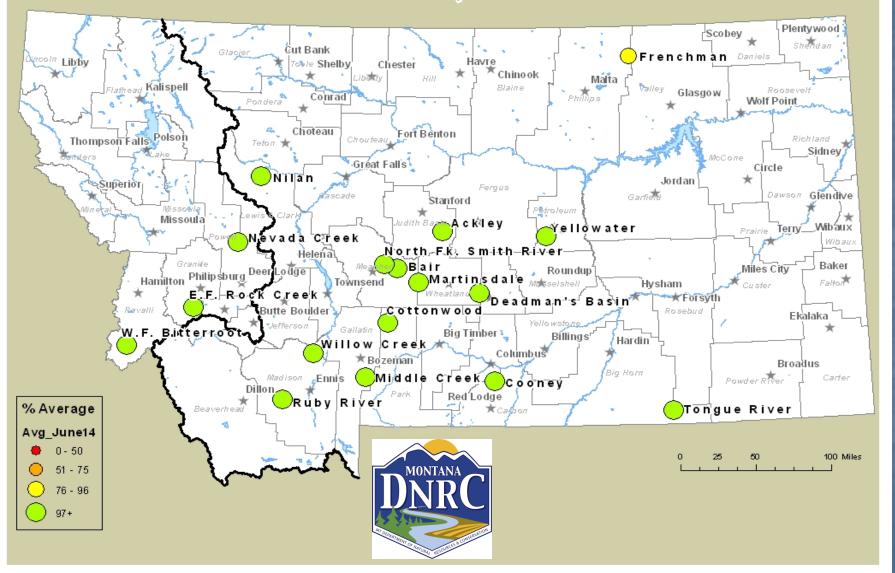
Reservoir Storage Outlook July, 17, 2014



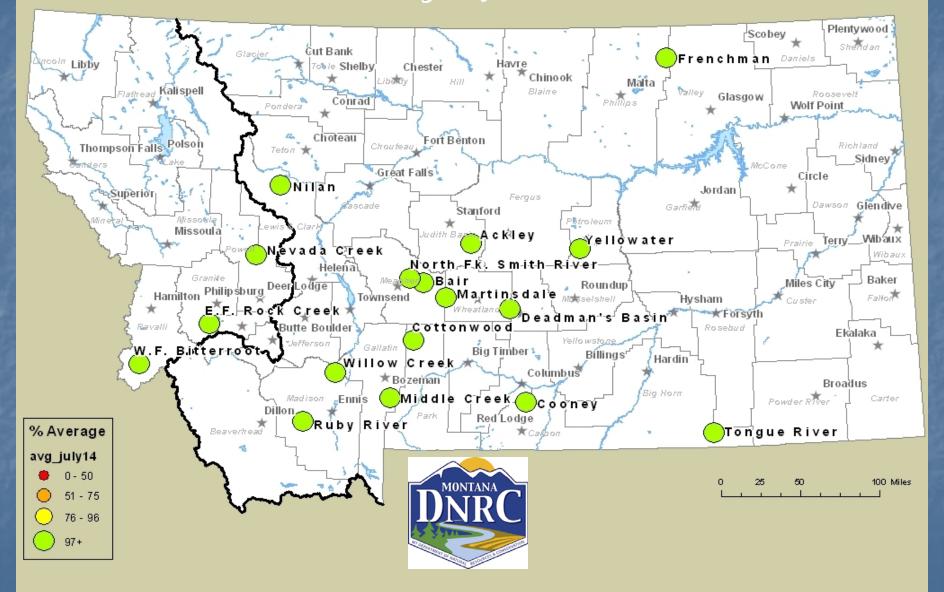
DNRC Water Resources Division State Water Projects Bureau



Reservoir Contents Report June 19, 2014



Reservoir Contents Report July 17, 2014



MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION

WATER RESOURCES DIVISION - STATE WATER PROJECTS BUREAU

July 17, 2014

All Contents in Acre-Feet

RESERVOIR	TOTAL CAPACITY (Includes dead storage)*		CC	ONTENTS					
	Full Pool	AVERAGE	Last Year	Last Month	PRESENT	% CAPACITY	%AVERAGE	READING	COMMENTS
	Contents	1960 - 2013	6/30/2013	6/30/2014	7/17/2014	7/17/2014	7/17/2014	DATE	
ACKLEY	6,722	4,220	6,551	6,213	6,213	92	147	7/1/2014	elev.=4315.96
BAIR	7,300	5,076	5,471	7,512	7,512	103	148	7/1/2014	elev.=5325.75
COONEY	28,230	23,566	28,230	27,263	25,715	91	109	7/15/2014	elev.=4248.09 (25,625 AF)
COTTONWOOD	1,900	1,592	1,148	1,900	1,850	97	116	7/17/2014	volume estimated
DEADMAN'S BASIN	75,968	49,660	56,214	72,480	71,400	94	144	7/14/2014	elev.=3918.75 (67,650 AF)
E.F. ROCK CREEK	16,040	11,000	13,197	13,340	14,079	88	128	7/16/2014	elev.=6050.4
FRENCHMAN	2,777	2,711	2,777	2,777	2,777	100	102	6/30/2014	elev.=2263.5
MARTINSDALE	23,348	15,233	15,904	23,622	22,462	96	147	7/16/2014	elev.=4778.3
MIDDLE CREEK	10,184	8,641	10,158	10,184	10,045	99	116	7/16/2014	elev.=6720.4
NEVADA CREEK	11,207	8,907	7,654	10,200	9,840	88	110	7/15/2014	elev.=4612.17
NILAN	10,992	7,490	9,249	9,854	9,042	82	121	7/17/2014	elev.=4438.62 (8,142 AF)
N.FK. SMITH RIVER	11,406	7,958	11,434	11,553	10,500	92	132	7/17/2014	volume estimated
RUBY RIVER	37,612	27,933	33,162	37,612	35,000	93	125	7/17/2014	volume estimated
TONGUE RIVER	79,071	57,927	78,242	80,784	77,895	99	134	7/16/2014	elev.=3428.1
W.F. BITTERROOT	32,362	29,562	32,362	32,362	32,301	100	109	7/12/2014	elev.= 4725.44
WILLOW CREEK	18,000	13,389	11,929	18,000	17,500	97	131	7/15/2014	volume estimated
YELLOWATER	3,842	1,592	3,008	3,236	3,236	84	203	7/2/2014	elev.=3116.9

^{*} Note: Reservoir contents include dead storage at the following:

Ackley 1001 AF "O&M slope storage table does not include dead storage (so dead storage has to be added into the storage from the table)

Cooney 90 AF ** Tongue River 711 AF (O&M storage table includes dead storage)

Deadman's 3750 AF ** W. F. Bitterroot Willow Creek 269 AF (O&M storage table includes dead storage)

^{*} Note: Cooney capacity reflects capacity after 1982 dam rehabilitation; prior capacity was 24,195 A.F.. Average storage shown is for post rehabilitation data.

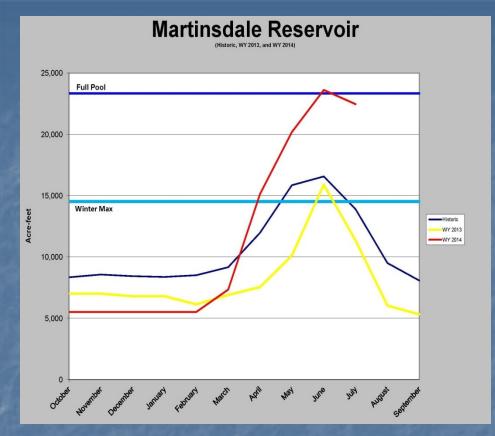
^{*} Note: Middle Creek capacity reflects capacity after 1993 dam rehabilitation; prior capacity was 8,027 A.F.. Average storage shown is for post rehabilitation data.

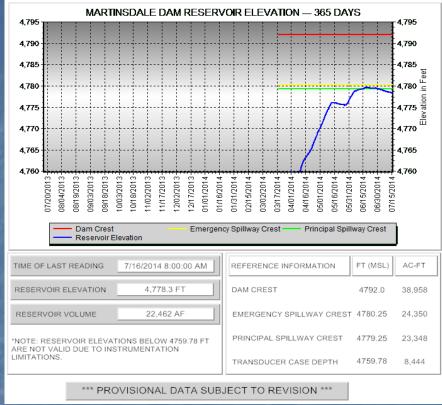
^{*} Note: Nevada Creek Reservoir Capacity reflects live storage capacity survey conducted in year 2000. Prior live storage capacity documented as 12,723 AF.

^{*} Note: Tongue River capacity reflects capacity after 1999 dam rehabilitation; prior capacity was 68,040 A.F.. Average storage is post rehabilitation data.

^{*} Note: Frenchman Reservoir capacity tables updated based on aerial survey; prior capacity was 3752 A.F. Average shown is pre aerial survey



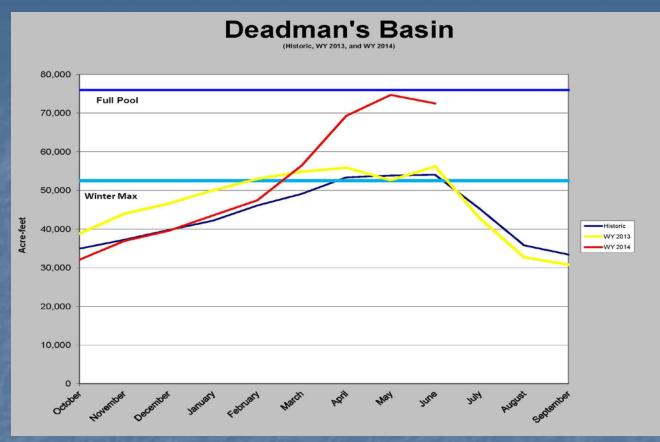






- •96% Capacity
- •22,462 Acre-Feet
- •Elev.=4,778.3
- •Water Supply is favorable

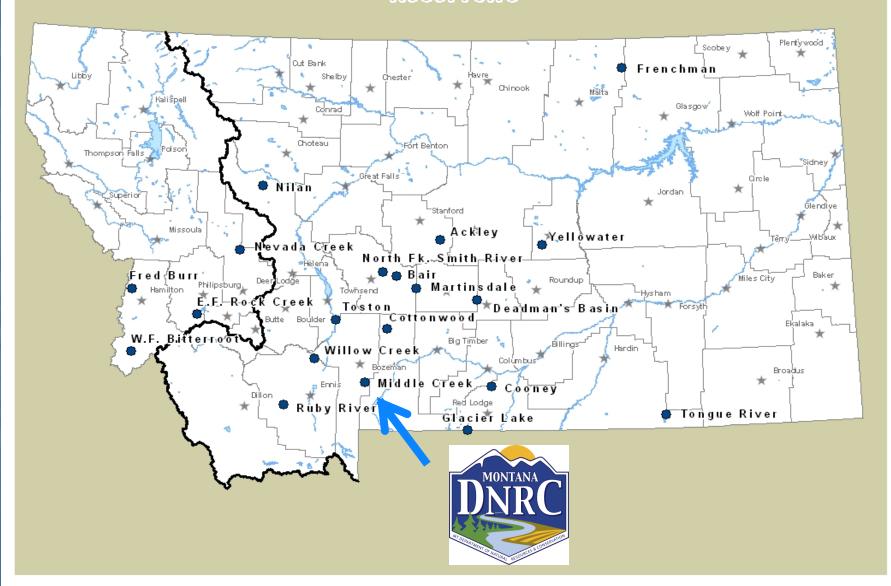


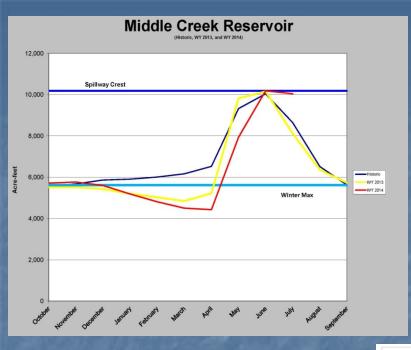


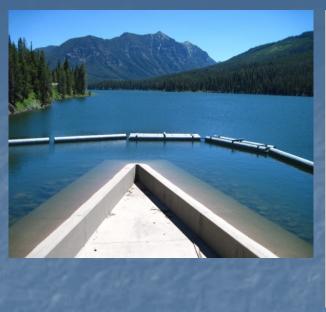
- •94% Capacity
- •74,400 Acre-Feet
- •Elev.=3918.75
- •Outflow=250 cfs
- •Water Supply is favorable



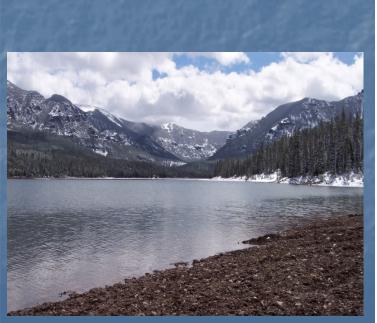


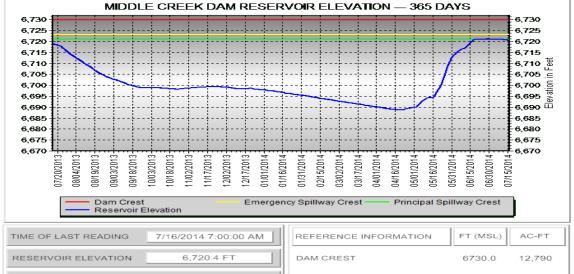






- •99% Capacity
- •Outflows=93 cfs
- •10,045 Acre-Feet
- •Elev.=6720.4
- •Water Supply is favorable





TIME OF LAST READING 7/16/2014 7:00:00 AM

RESERVOIR ELEVATION 6,720.4 FT

RESERVOIR VOLUME 10,045 AF

MIDDLE CREEK BELOW DAM 93.3 CFS

TIME OF LAST READING 7/16/2014 7:45:00 AM

 REFERENCE INFORMATION
 FT (MSL)
 AC-FT

 DAM CREST
 6730.0
 12,790

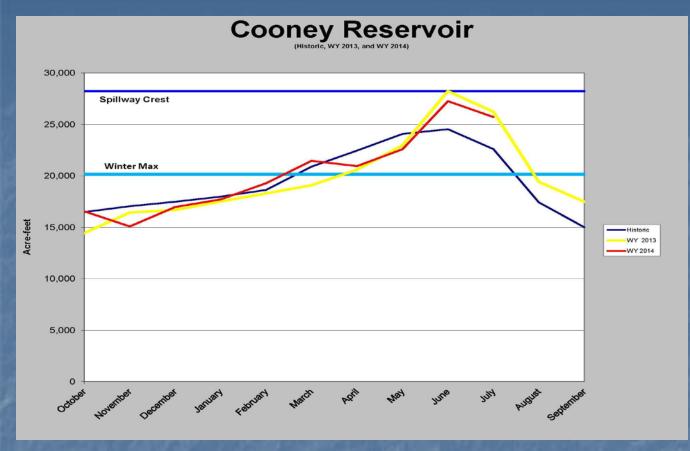
 EMERGENCY SPILLWAY CREST
 6723.0
 10,707

 PRINCIPAL SPILLWAY CREST
 6721.0
 10,184

 LOWEST USABLE ELEVATION
 6637.0
 0

*** PROVISIONAL DATA SUBJECT TO REVISION ***





- •91% Capacity
- •25,715 Acre-Feet
- •Elev.=4248.09
- •Inflows= 186 cfs
- •Outflows= 155 cfs
- •Water Supply is favorable



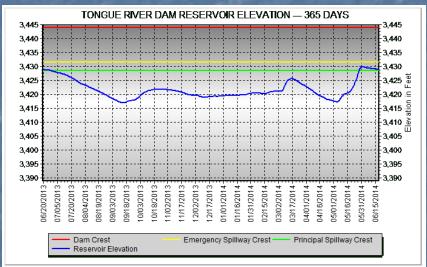


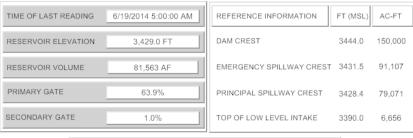


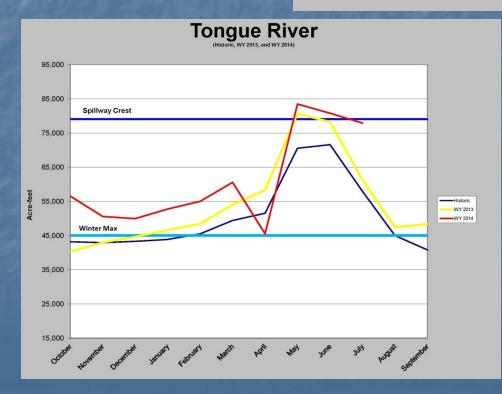




- •99% Capacity
- •77,895 Acre-Feet
- •Elev.=3428.1
- •Inflows=422 cfs
- •Outflows=437 cfs
- •Water Supply is favorable







*** PROVISIONAL DATA SUBJECT TO REVISION ***

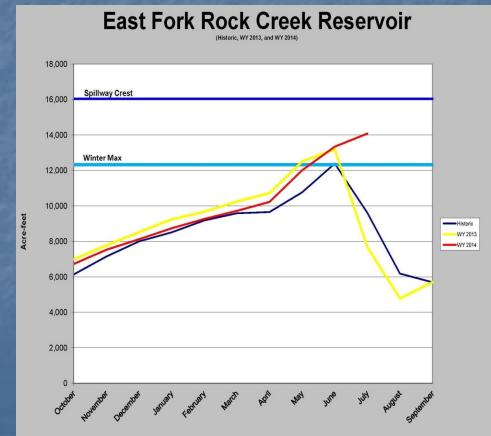




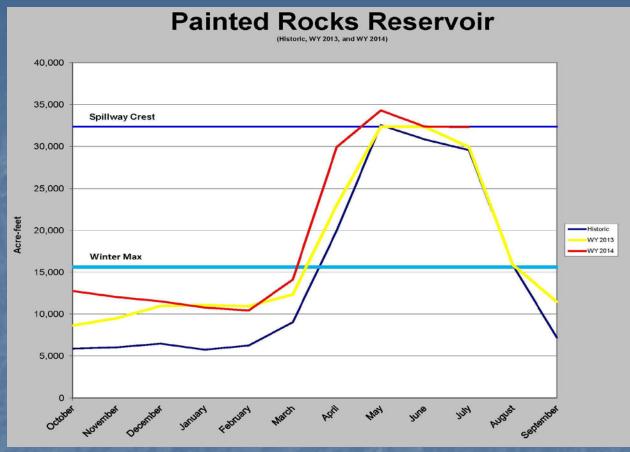


- •88% Capacity
- •14,079 Acre-Feet
- •Elev.=6050.4
- •Water Supply is favorable









- •100% Capacity
- •32,301 Acre-Feet
- •Elev.=4725.44
- •Inflows/Outflows=250 cfs
- •Water Supply is favorable





Summary

- Runoff conditions were ideal for reservoir storage.
- Majority of DNRC SWP Reservoirs filled to capacity.
- Irrigation/fisheries releases increasing as river levels decrease.
- Water Supply is favorable for DNRC SWP reservoirs and water users should expect full contracted deliveries through WY 2014.



Harold Gemmell, Direct Fire Protection Coordinator DNRC

hgemmell@mt.gov 406 329-4996

National GACC Portal

NRCC Home

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Contact Us

Wednesday, May 22, 2013

INCIDENT INFORMATION

PREDICTIVE SERVICES

Intelligence

Weather

Fuels/Fire Danger

Outlooks

LOGISTICS / DISPATCH

Dispatch Operations

Aviation

Crews

Equipment/Supplies

Overhead

ADMINISTRATIVE

Northern Rockies Coordinating Group

Policy and Reports

Incident Business Management

Safety Management

Software Applications

Training

RELATED LINKS

National

Area

Welcome to the

NORTHERN ROCKIES COORDINATION CENTER

The Northern Rockies Coordination Center (NRCC) is the interagency focal point for coordinating the mobilization of resources for wildland fire and other all-hazard incidents throughout the Northern Rockies Area and, when necessary, for assignment throughout the United States. Located in Missoula, Montana, the Center also provides Intelligence and Predictive Services related products for use by the wildland fire community for purposes of wildland fire and incident management decision-making.

There are five primary components to the NRCC website.

- Incident Information provides general information on large wildland fires, fire restrictions and closures, and other relevant activity throughout the Geographic Area.
- Predictive Services provides operational products and links to incident situation information, maps, resources, current fire weather conditions, forecasts, fuels, fire behavior as well as daily, weekly and monthly fire weather/fire danger outlooks.
- Logistics/Dispatch provides detailed operation and information links for aviation, crews, equipment and overhead, including Incident Management Teams.
- Administrative provides fire and incident management tools and links including policies and reports, business management, safety, software applications, and training.
- Related Links component provides links to related Internet websites within the Northern Rockies Area and nationally.



BULLETIN BOARD 50



SITUATION

PREPAREDNESS LEVELS
Northern Rockies PL: 1
National PL: 1

Situation Reports

Year-to-Date & Historical Wildfire Data

· Restrictions & Closures · · ·

SAFETY ALERTS

NRGA Landscape Mortality Safety Alert NRGA Landscape Mortality Pocket Card

Coal Seam Fires Safety

COOPERATING FEDERAL, STATE AND OTHER AGENCIES IN THE NORTHERN ROCKIES AREA



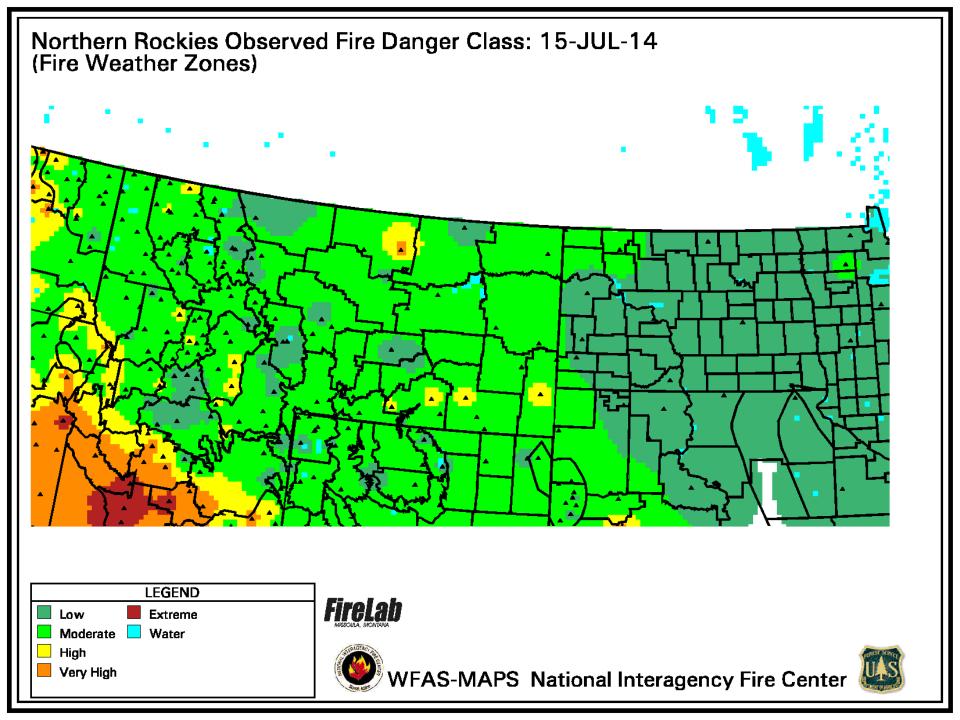




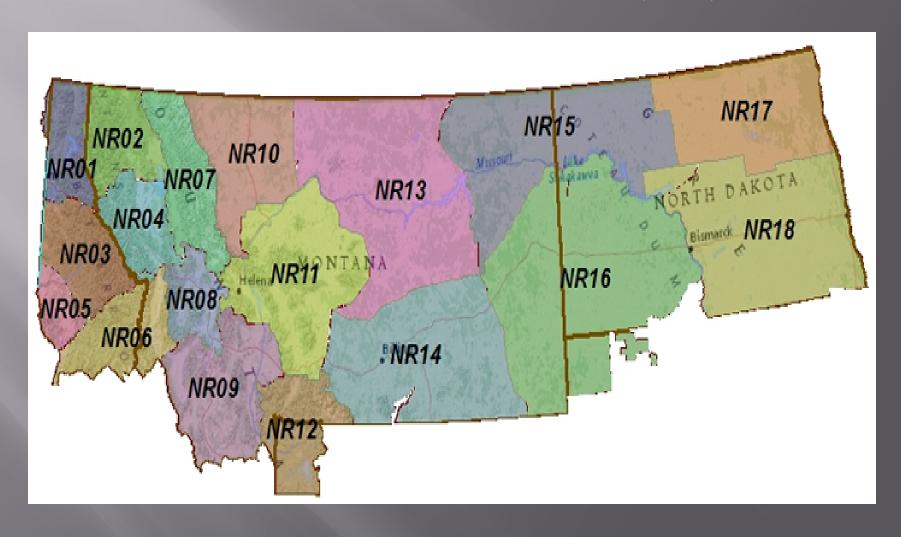


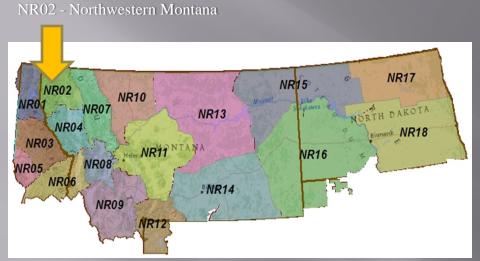




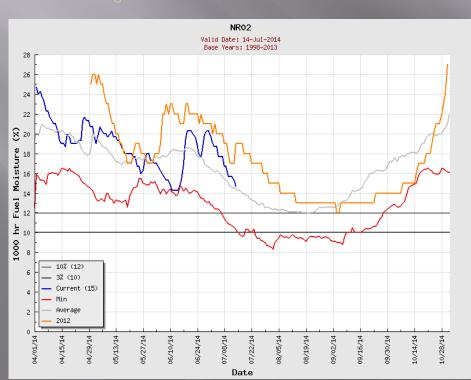


NRCC PREDICTIVE SERVICE AREAS (PSA'S)

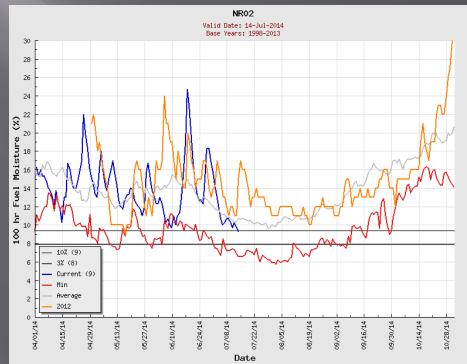


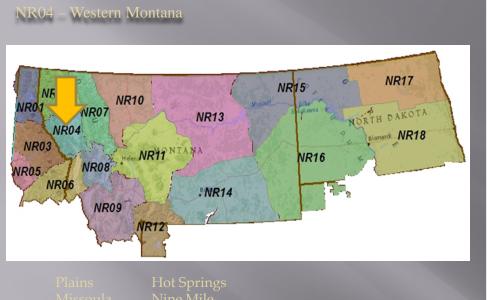


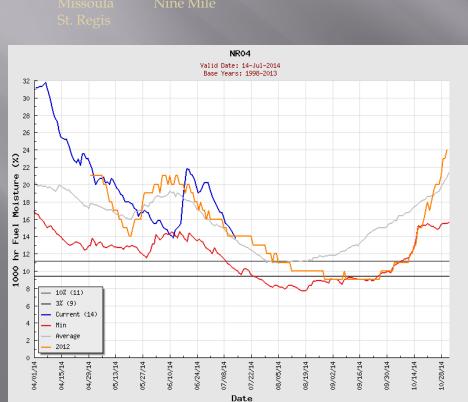
Libby Ranger Station Troy Ranger Station Eureka Ranger Station



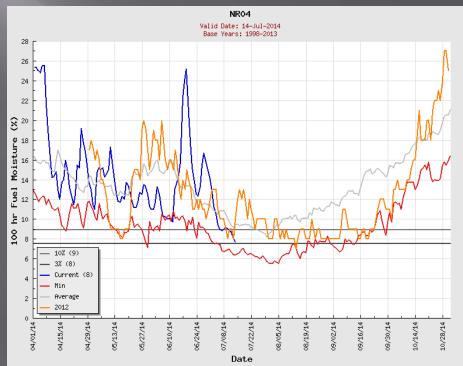


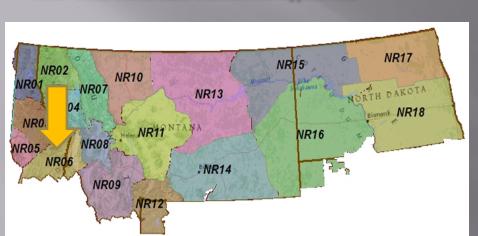






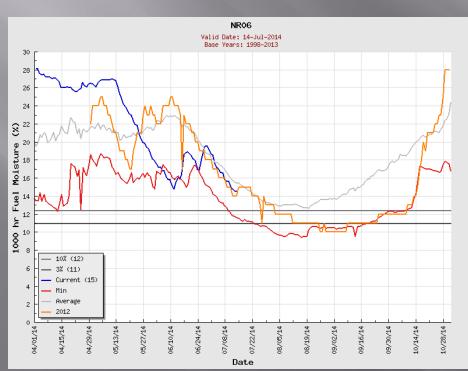


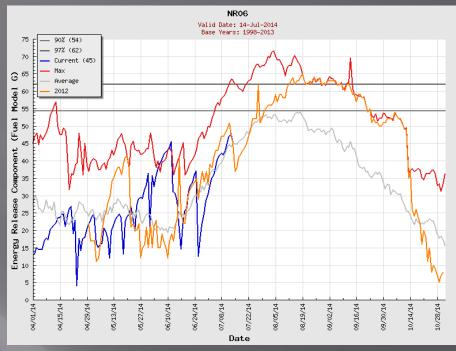


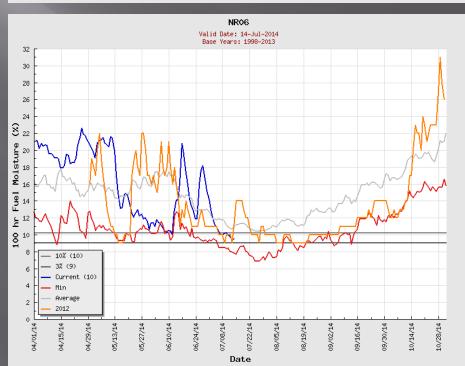


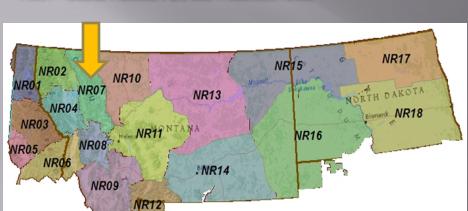
North Central Idaho and Bitterroot/Sapphire Mtns



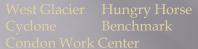


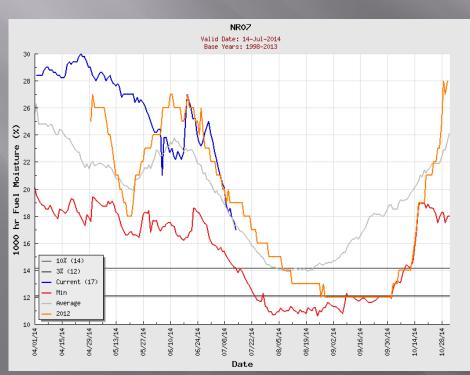




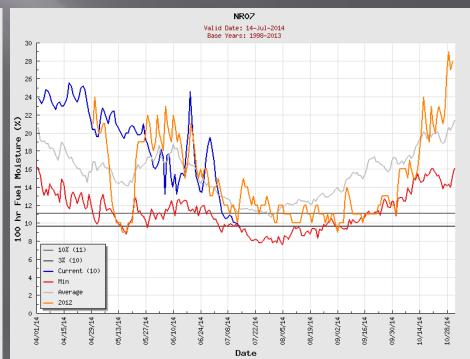


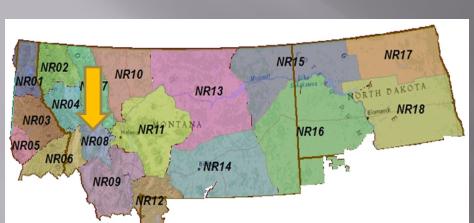
NR07 - Glacier National Park and Wilderness Areas





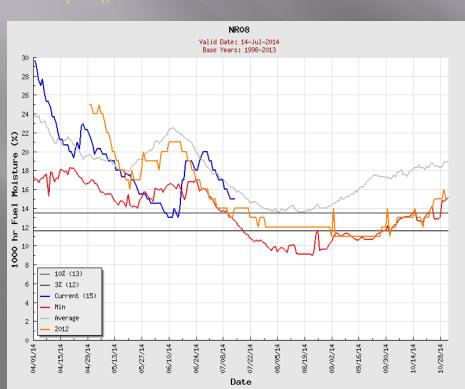


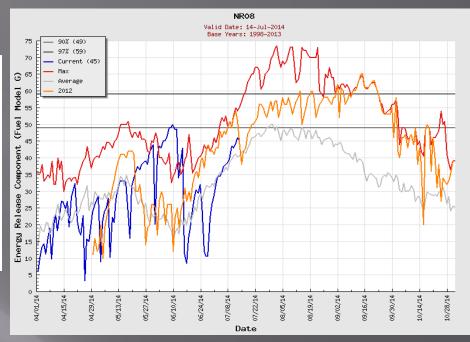


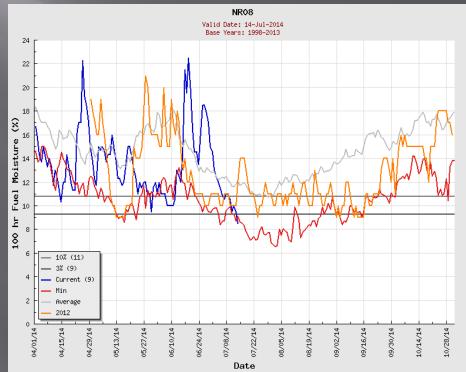


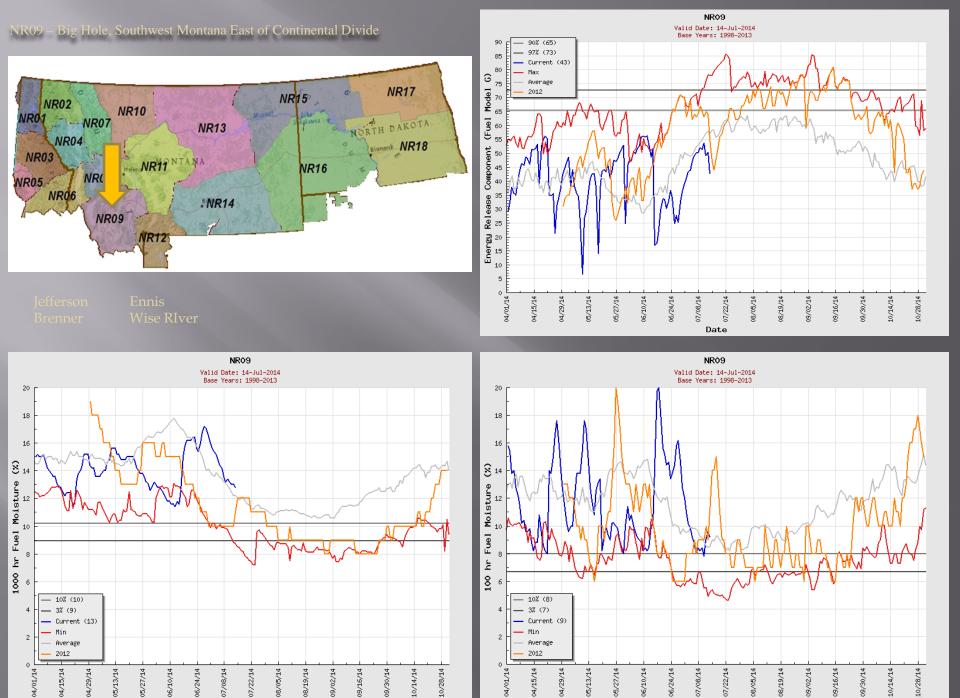
Southwest Montana, West of Continental Divide

Lincoln Phillipsburg



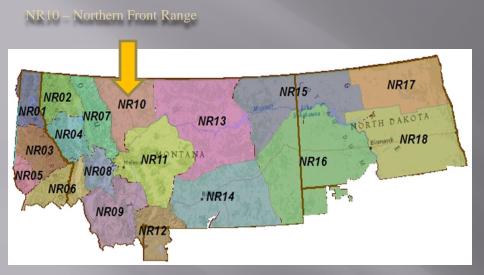




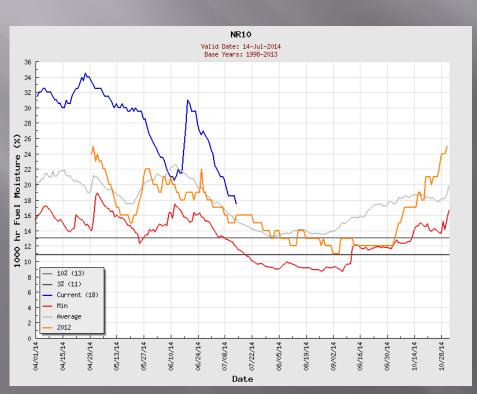


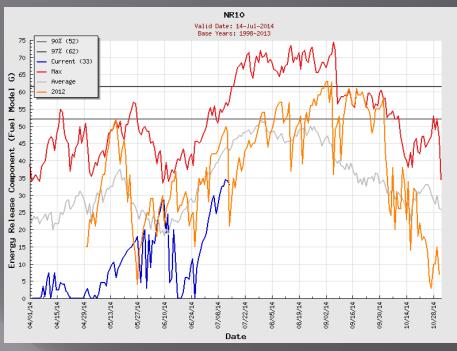
Date

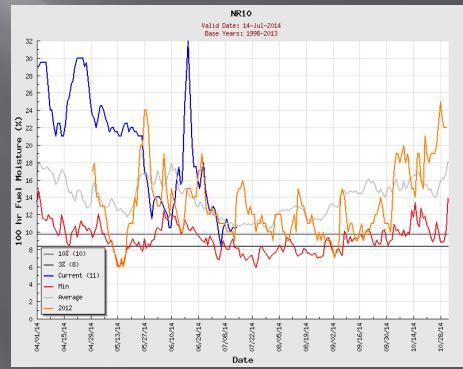
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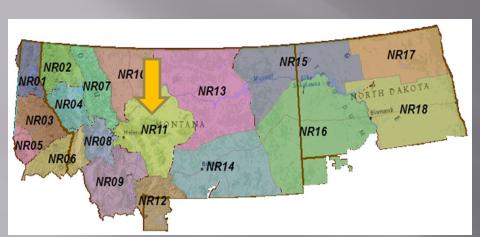


St. Mary Gleason



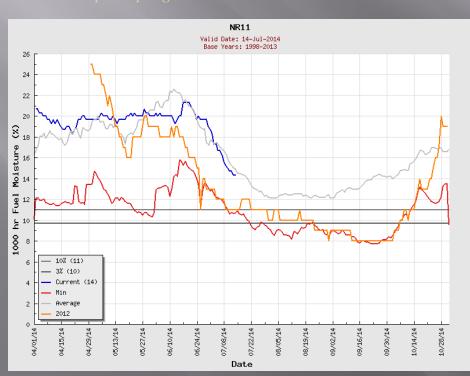


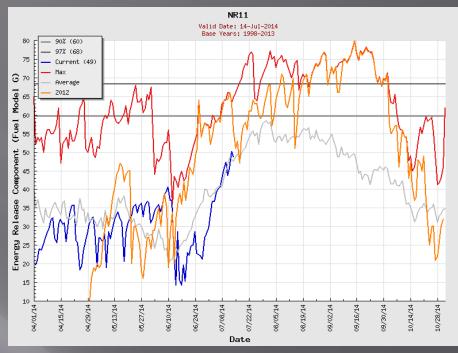


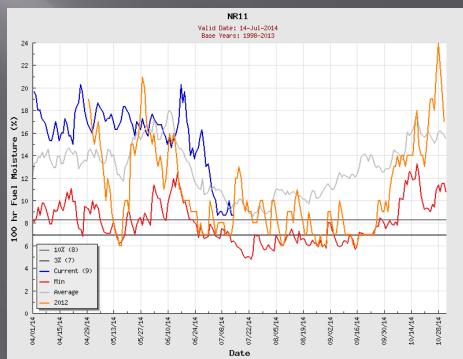


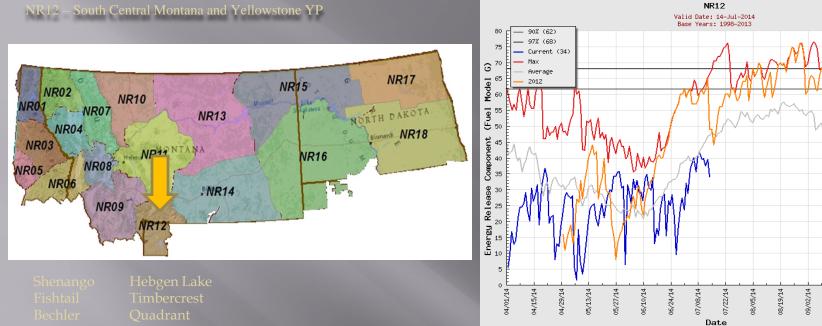
Helena Porphyry White Sulphur Springs

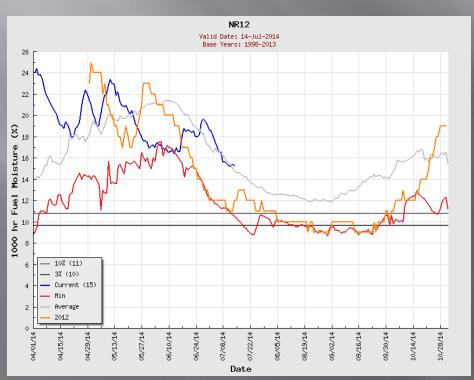
West Central Montana

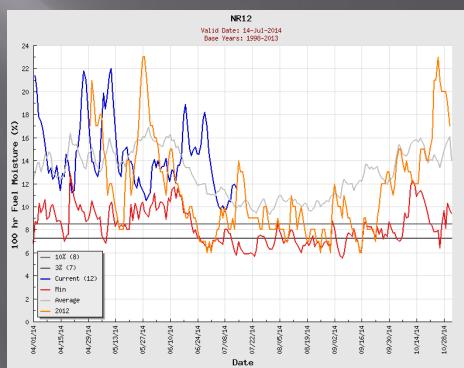








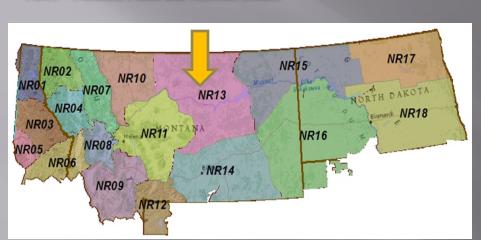




09/16/14

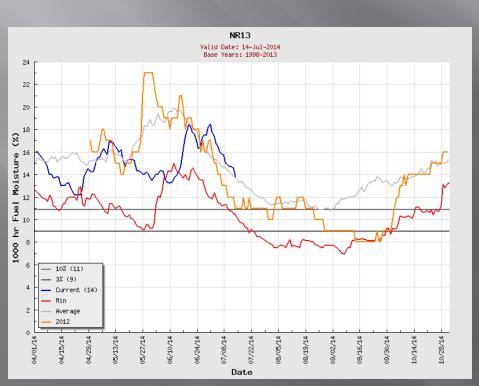
09/30/14

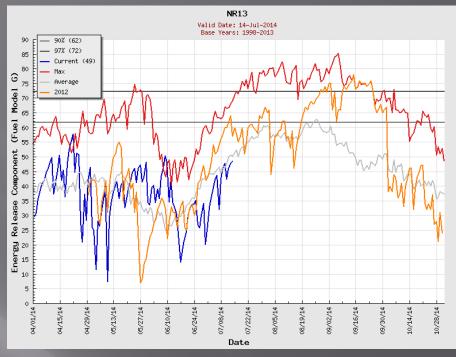
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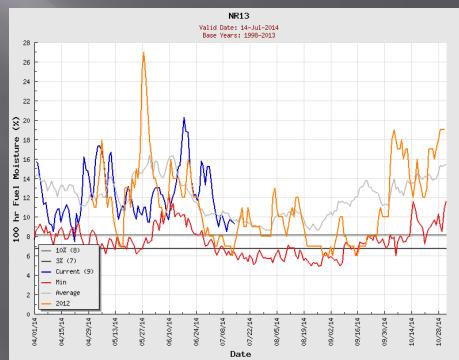


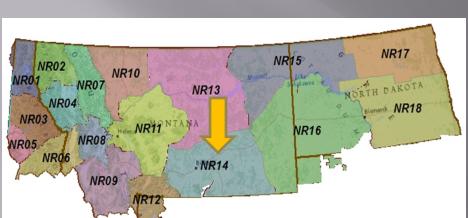
Northern Plains and Missouri Breaks

Rocky Boy Little Bullwhacker Bluff Creek King Coulee Armells Creek South Sawmill Creek







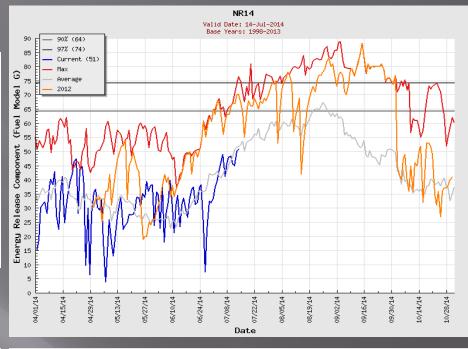


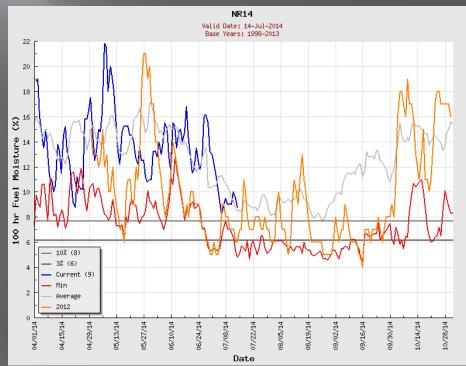
Southern Montana (Big Horn/Powder River)

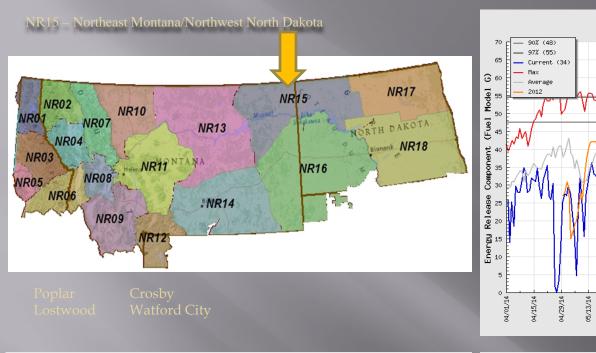
Wolf Mountain Bighorn Mountain Fort Howes

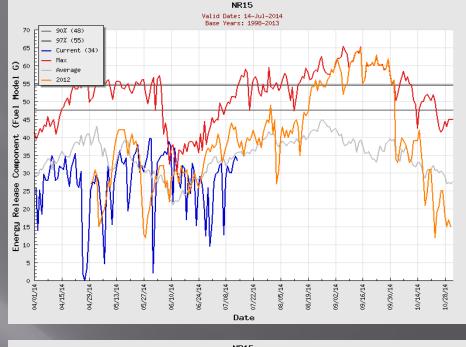
Pryor Mountain Badger Peak

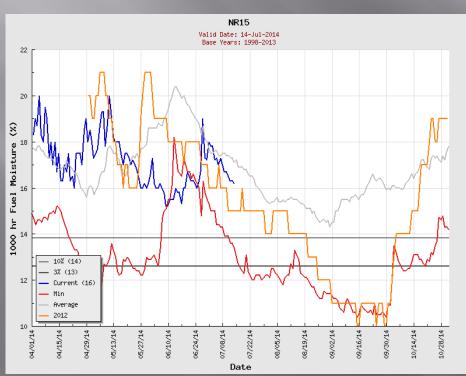


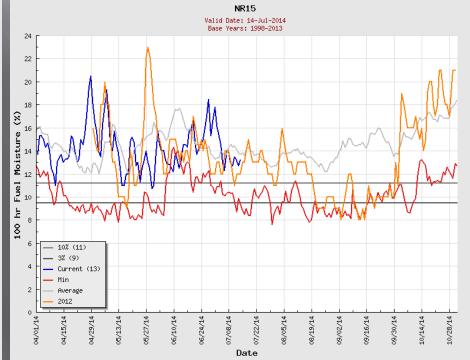




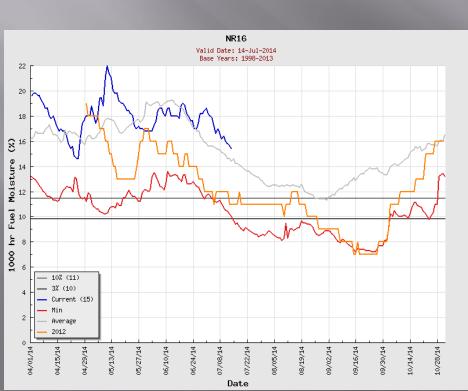


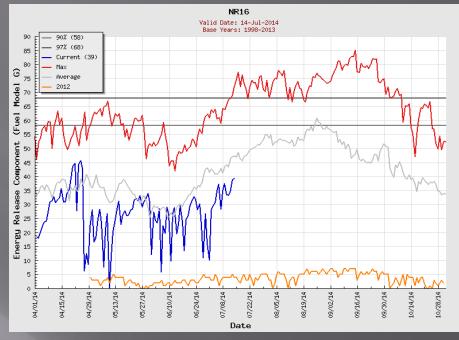


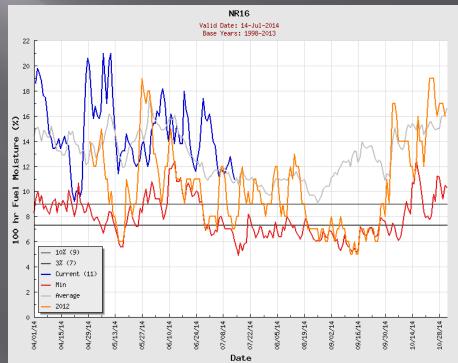


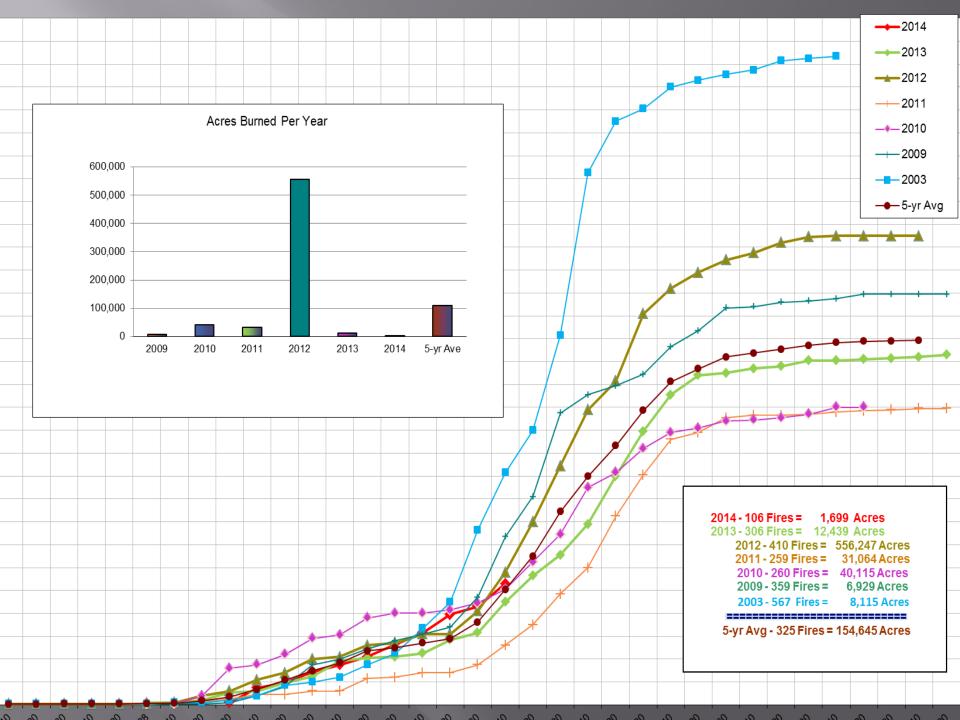












Montana Drought and Water Supply Status by County

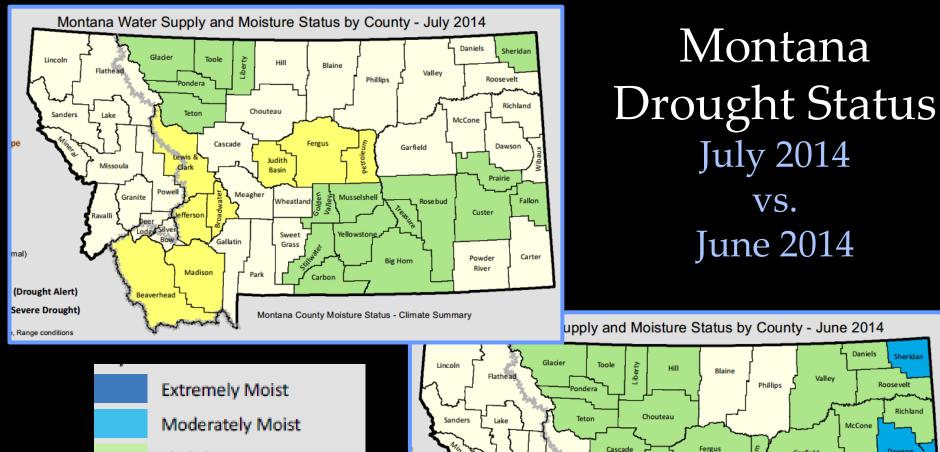
Change from June to July 2014 – Assessed 7/15/2014 (All changes one category unless noted otherwise)

No Change

Drier

Beaverhead	Missoula	Big Horn (-2)	Hill	Sheridan
Blaine	Phillips	Broadwater	Jefferson	Stillwater
Deer Lodge	Pondera	Carbon	Judith Basin (-2)	Sweetgrass (-2)
Flathead	Powell	Carter (-2)	Lewis and Clark	Treasure (-2)
Gallatin	Ravalli	Cascade	McCone	Valley
Glacier	Sanders	Chouteau	Musselshell	Wheatland (-2)
Granite	Silver Bow	Custer (-2)	Park	Wibaux (-2)
Lake	Teton	Daniels (-2)	Petroleum (-2)	Yellowstone
Liberty	Toole	Dawson (-2)	Powder River (-2)	
Lincoln		Fallon	Prairie	
Madison		Fergus (-2)	Richland	
Meagher		Garfield	Roosevelt	
Mineral		Golden Valley	Rosebud (-2)	







Sheridan

Richland

Dawson



NOAA - National Weather Service

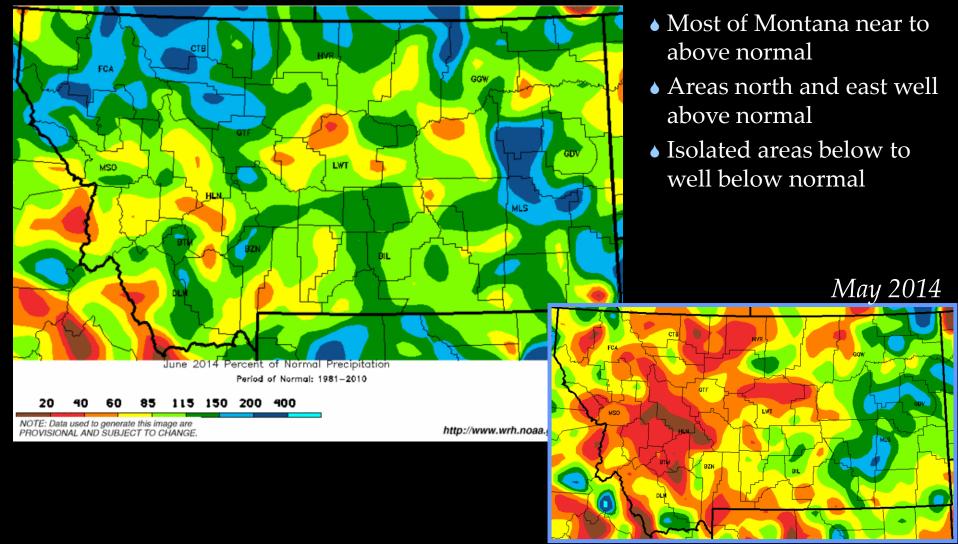
Montana Drought & Water Supply Advisory Committee

July 17, 2014 National Weather Service Gina Loss – Service Hydrologist



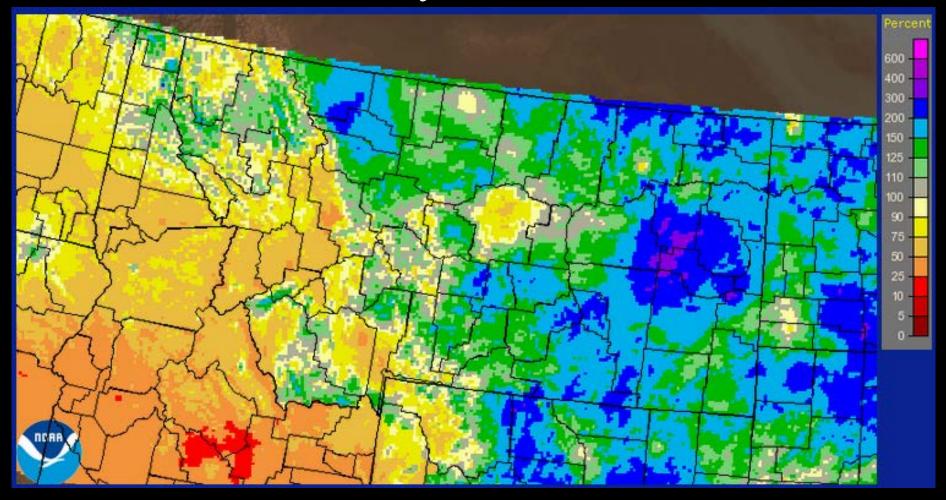
Percent of Normal Precipitation

June 2014





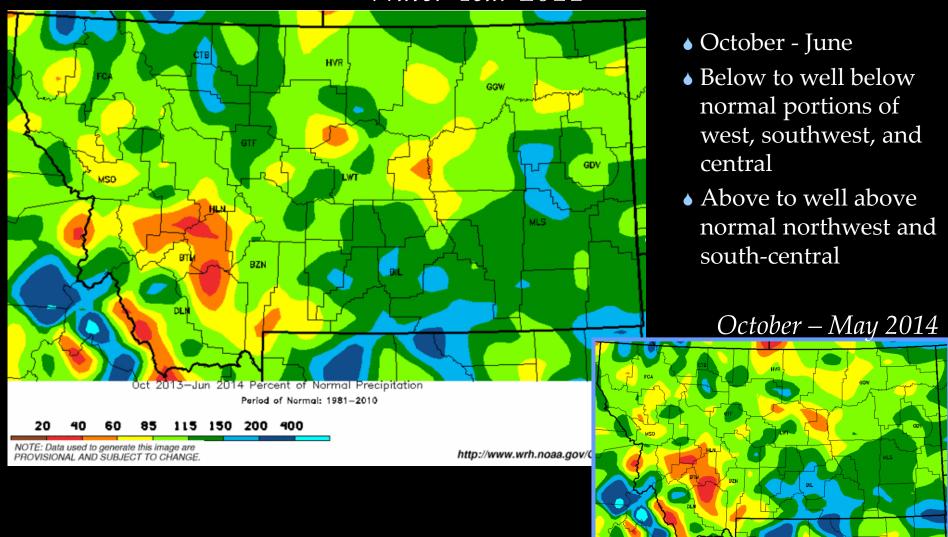
60-day Percent of Normal Precipitation May and June





Percent of Normal Precipitation

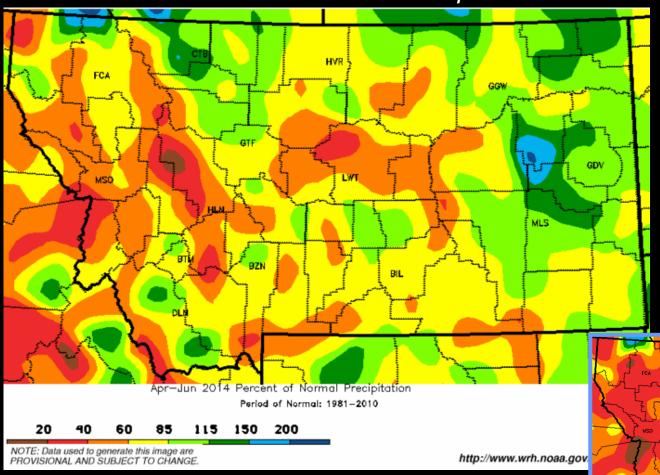
Water Year 2014





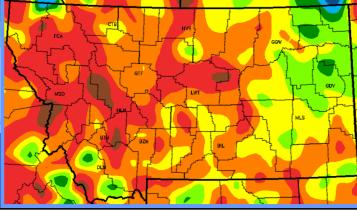
Percent of Normal Precipitation

Crop Year



- April June
- Below to well below normal most of Montana
- Near to above normal RMF and east

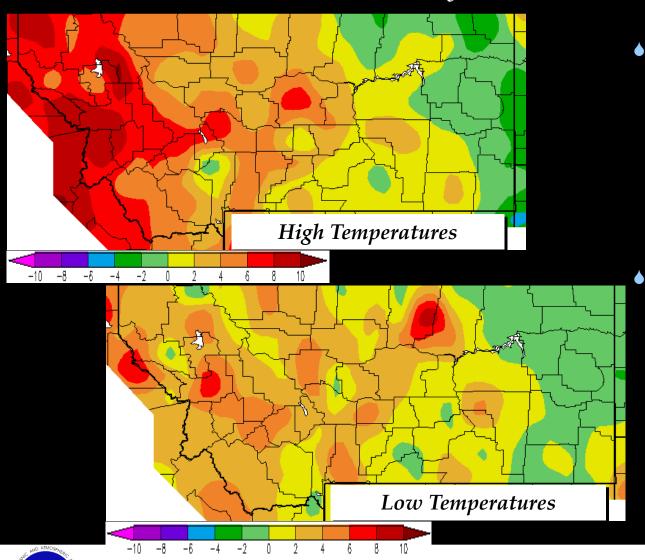
April – May 2014





Temperature Anomalies

July 1 - 14



Highs

- −6 to 10 degrees above normal west
- -2 to 8 degrees above normal southwest and central
- Near normal east

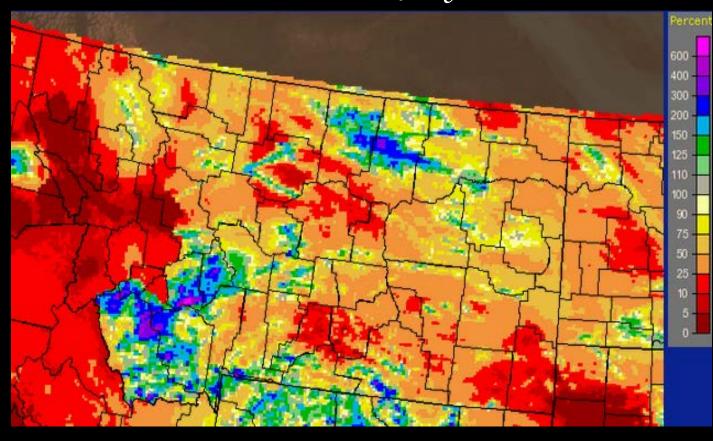
♦ Lows

Near to 6 degrees above normal most of the state



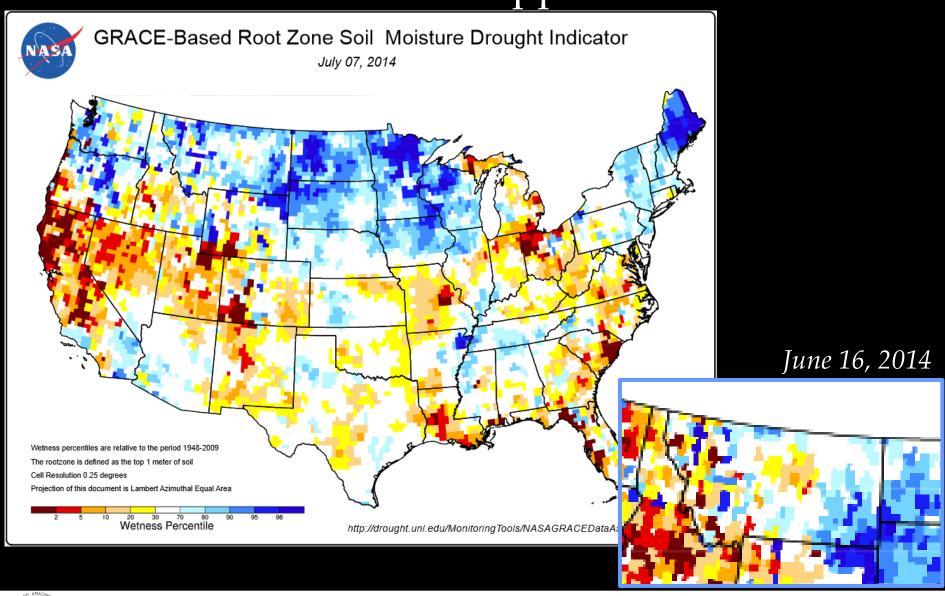
NOAA - National Weather Service

Percent of Average Precipitation *July 1 - 15*



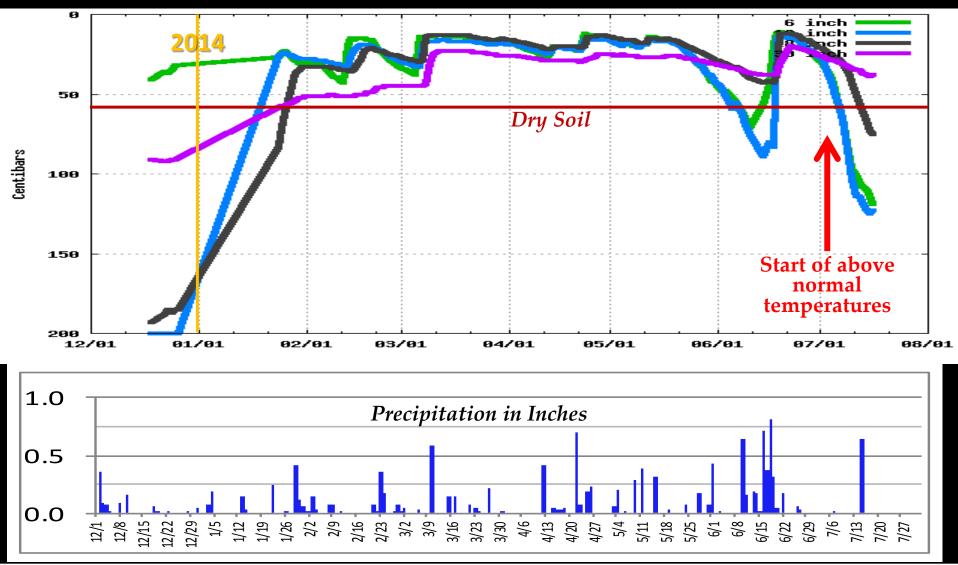
- Below to well below normal most of Montana
- Above to well above normal southwest and north central, portions of south central

Soil Moisture – Upper 1 Meter





Great Falls Soil Moisture

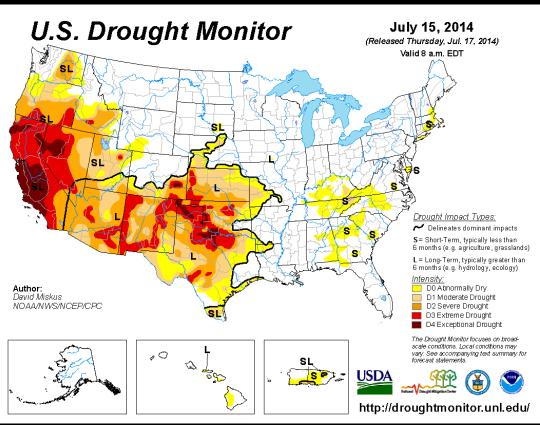


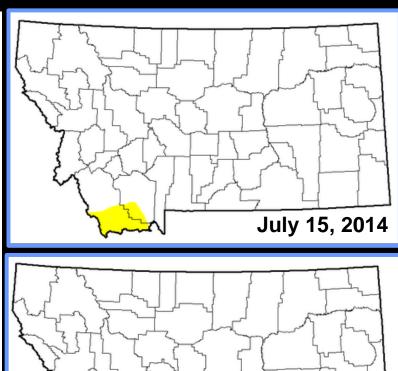


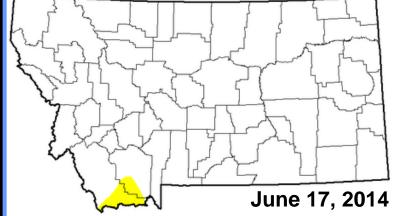
NOAA - National Weather Service

National Drought Monitor

Issued July 17



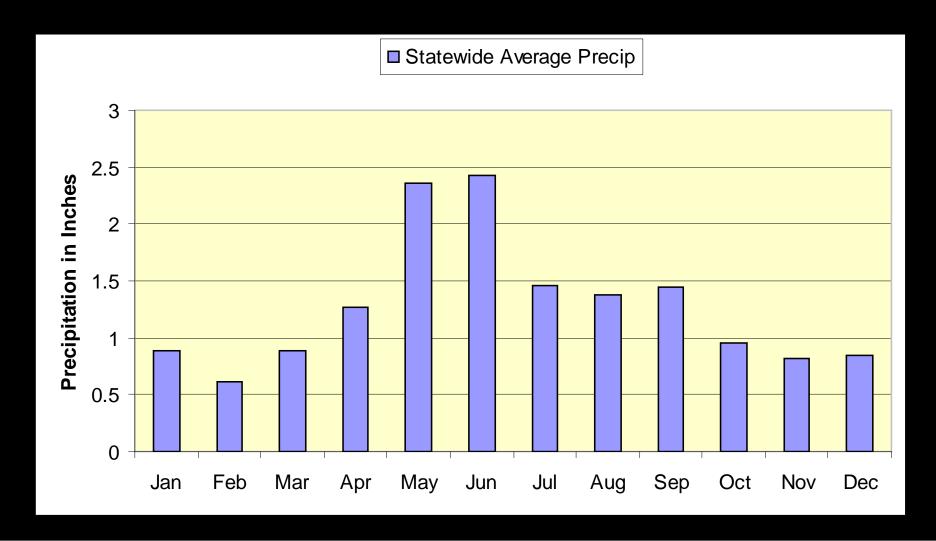






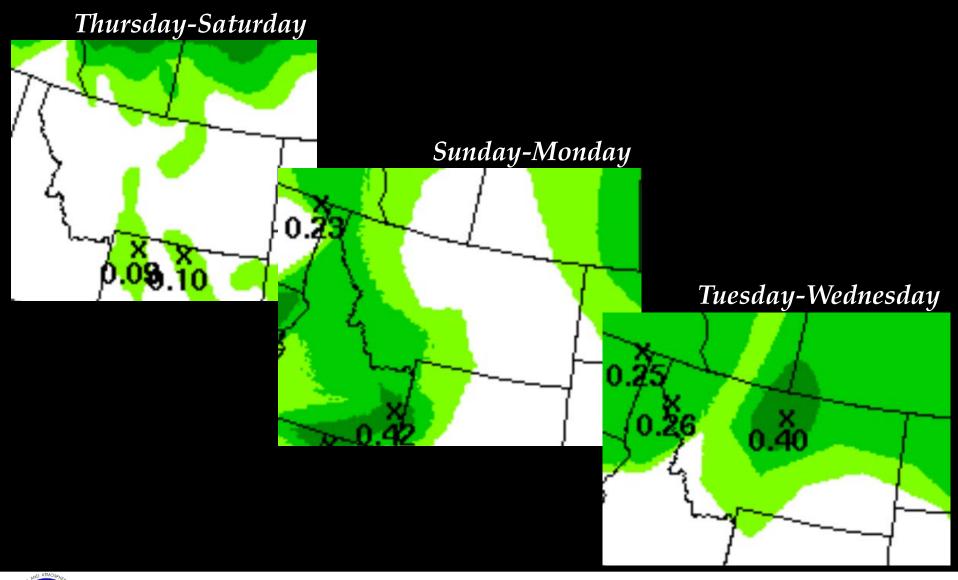
Statewide Average Precipitation

July reduced to nearly half of May and June amounts





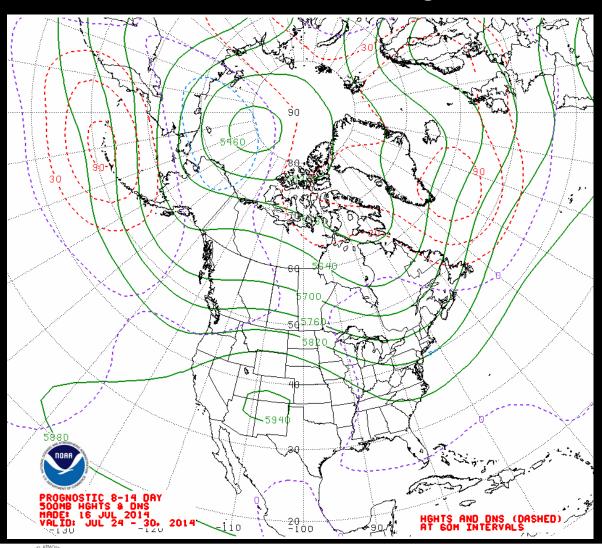
7-Day Precipitation Forecast





8 to 14 Day Outlook

500mb Heights and Anomalies



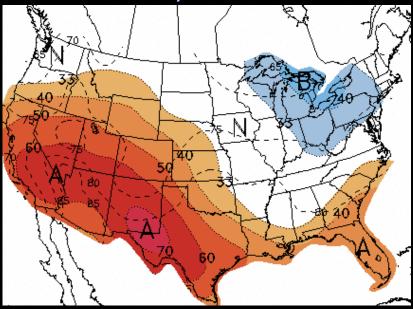
- July 24 30
- High pressure ridge over west and central U.S.
 - Low pressure troughs over eastern PacificOcean and east U.S.



8 to 14 Day Outlook

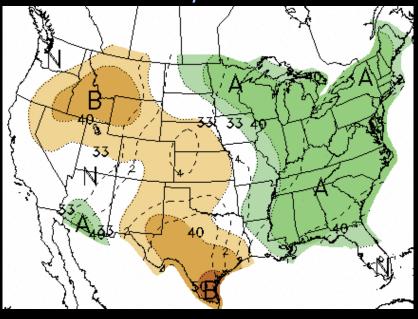
July 24 - 30

Temperature



- 33% to 40% chance temperatures will be above normal across southern half of Montana
- Equal chances temperatures will be above, below, or near normal across northern Montana

Precipitation

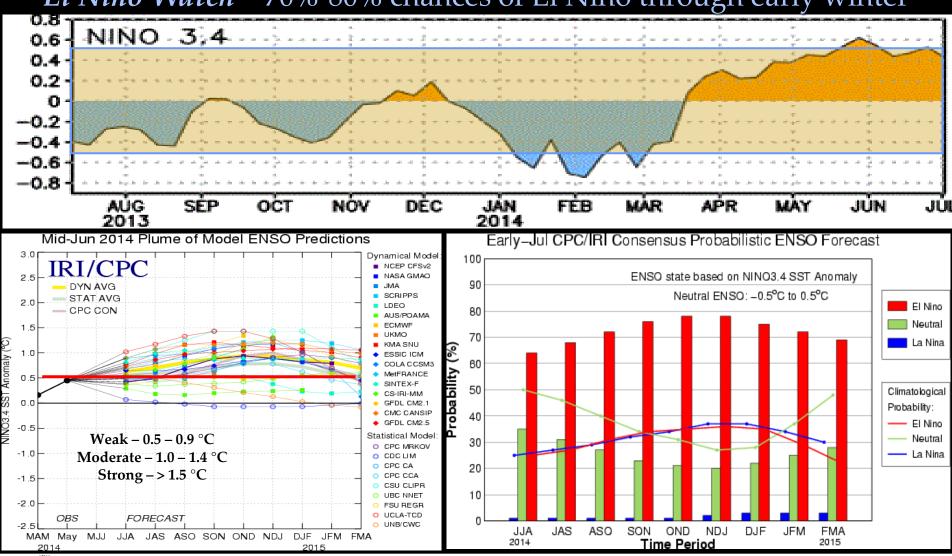


- 33% to 50% chance precipitation will be below normal west, central, into eastern Montana
- Equal chances precipitation will be above, below, or near normal far eastern Montana



El Niño / La Niña

El Niño Watch – 70%-80% chances of El Niño through early winter

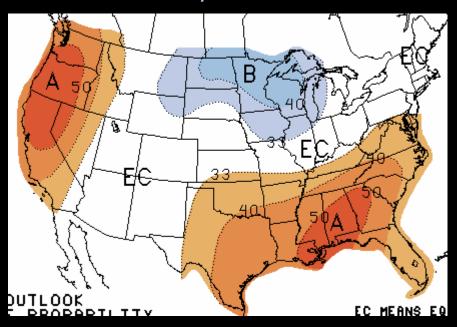




NOAA - National Weather Service

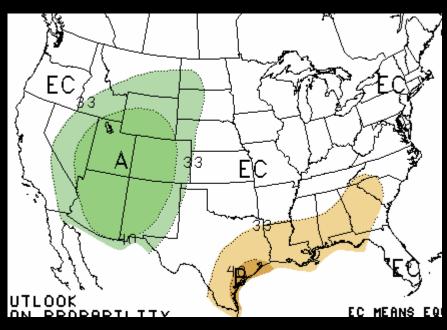
August Outlook *Updated July 17*

Temperature



- 33% to 40% chance temperatures will be above normal west
- 33% to 40% chance temperatures will be below normal east

Precipitation



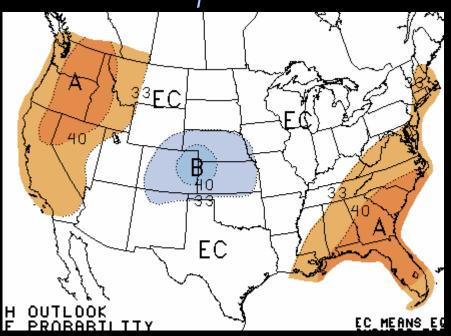
• 33% to 40% chance precipitation will be above normal south



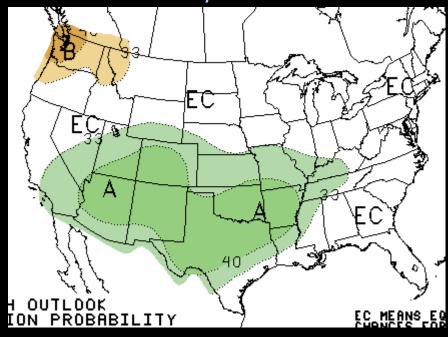
NOAA - National Weather Service

September – November Outlook *Updated July 17*

Temperature



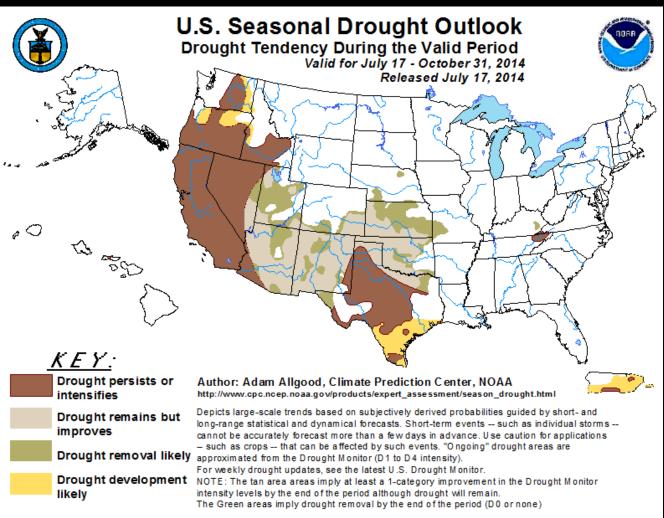
◆ 33% to 40% chance temperatures will be above normal western half of Montana Precipitation



◆ 33% to 40% chance precipitation will be below normal northwest

Drought Outlook through October

Issued July 17



 Drought area just to southwest of Montana expected to persist or intensify

In Summary...

- Dry conditions in April and May were followed by above normal precipitation (and some flooding) in June
 - Temporarily eased concerns of sliding into drought/fire season conditions
- Below normal precipitation with above normal temperatures in July enough to cause significant drying in many areas
 - Reports from extension offices mentioned lack of soil moisture
- Climate Outlook shows better chances for above normal precipitation south for August
 - Better chances for below normal precipitation northwest September through November
 - Up to 80% chance of El Niño developing through early winter



weather.gov

weather.gov/billings weather.gov/glasgow weather.gov/missoula weather.gov/greatfalls





Governor's Drought & Water Supply Advisory Committee

USDA NASS Mountain Region Montana Field Office Thomas Chard II Statistician

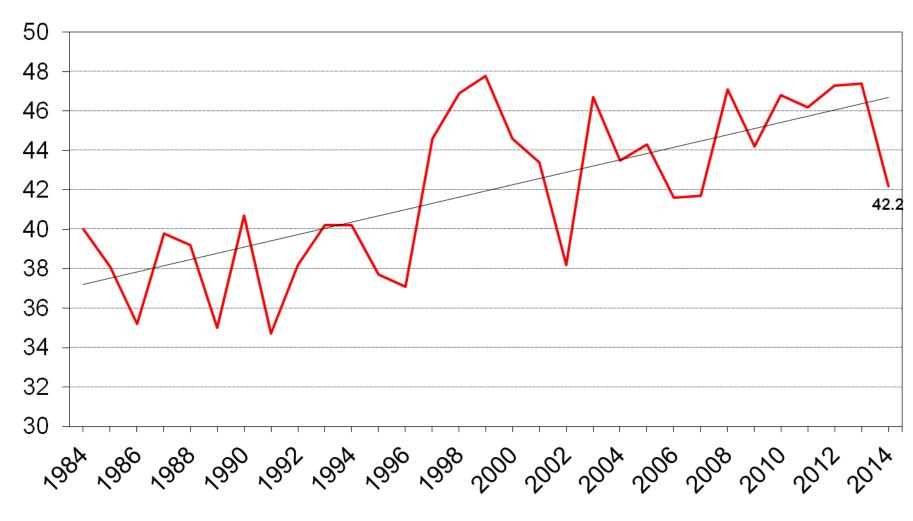


July 2014 Crop Production

			% Change from	% Change from
		July	Previous	Previous
Crop	Unit	2014	Forecast	Season
Winter Wheat United States:				
Harvested	Mil Ac	32.4	* NC	+ < 0.1
Yield	Bu/Ac	42.2	-0.5	-11.0
Production	Bil Bu	1.37	-1.0	-10.9
Montana:				
Harvested	Mil Ac	2.25	-4.0	+ 18.0
Yield	Bu/Ac	42.0	NC	-2.2
Production	Mil Bu	94.5	-4.0	+ 15.6
	USDA-NAS	SS 7-11-14	1	

U.S. Winter Wheat Yield

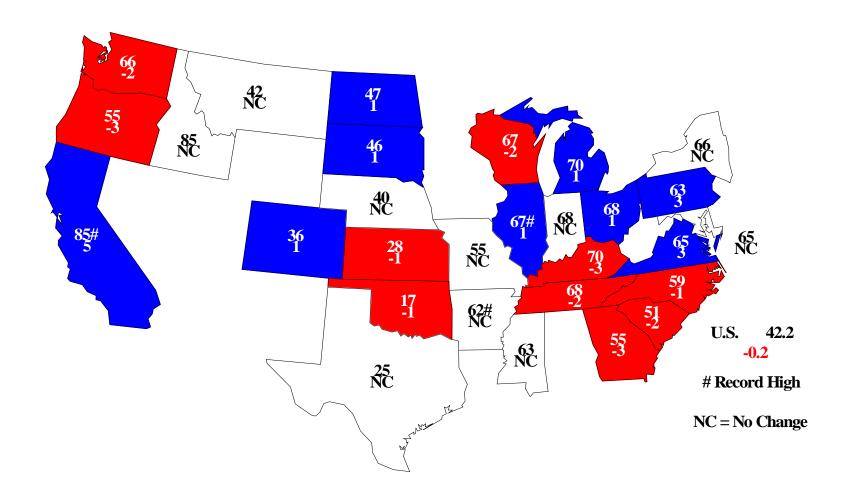
Bushels/acre



USDA-NASS

7-11-14

Winter Wheat Yield - July 1, 2014 Bushels and Change From Previous Month

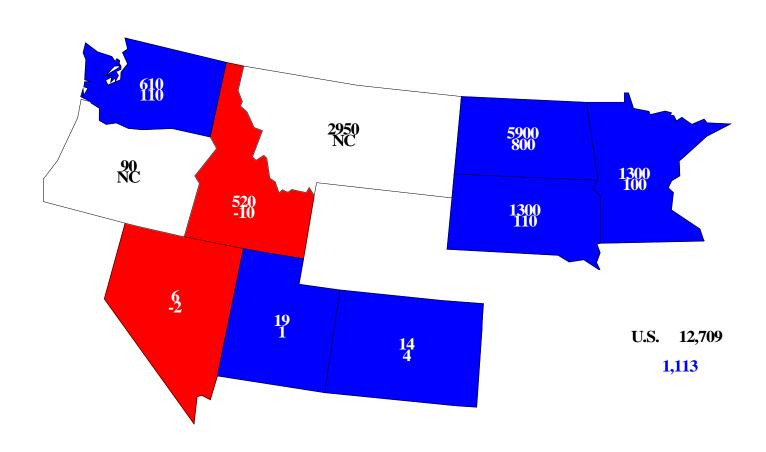




July 2014 Crop Production

			% Change from	% Change from
		July	Previous	Previous
Crop	Unit	2014	Forecast	Season
Other Spring Wheat				
United States:				
Harvested	Mil Ac	12.4	NC	+9.4
Yield	Bu/Ac	45.5		-3.4
Production	Mil Bu	565.0		+5.8
Montana:				
Harvested	Mil Ac	2.85	NC	+ 0.7
Yield	Bu/Ac	35.0		-5.4
Production	Mil Bu	99.75		-4.7
	USDA-NA	ASS 7-11-14		

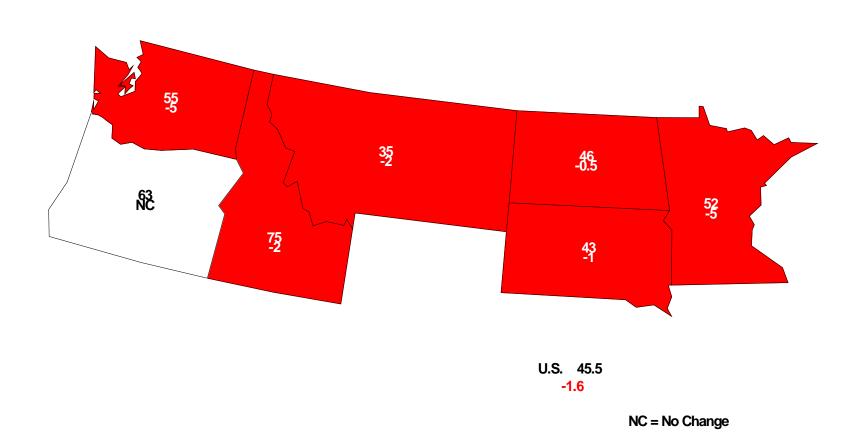
Other Spring Wheat Planted, 2014 Acres (000) and Change From Previous Year



NC = No Change

USDA-NASS 6-30-14

July 1, 2014 Other Spring Wheat Yield Bushels and Change From Previous Year



USDA-NASS

7-11-14

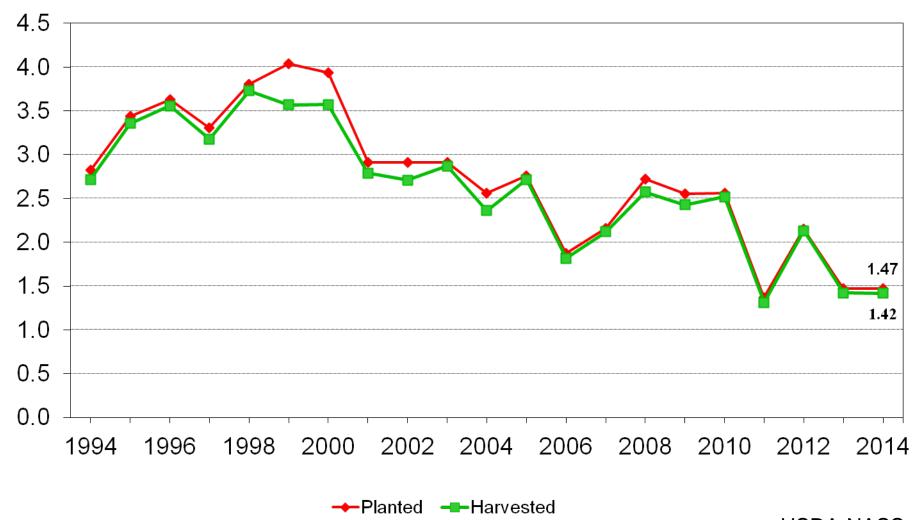


July 2014 Crop Production

			% Change from	
		July	Previous	
Crop	Unit	2014	Year	
Montana				
Durum Wheat:				
Harvested	(000) Ac	435	-11	
Yield	Bu/Ac	32.0	-6	
Production	Mil Bu	13.92	-16	
Barley:				
Harvested	(000) Ac	810	-2	
Yield	Bu/Ac	60.0	+11	
Production	Mil Bu	48.6	+8	
	USDA-NASS	7-11-14		

U.S. Durum Wheat Acres





USDA-NASS 6-30-14

Crop Weather ReportWeek Ending July 13,2014

- Topsoil and subsoil moisture conditions are higher than a year ago and the five year average.
- Crop development progressed well due to another week of warm days but reporters are beginning to comment that rain is needed to prevent crops from burning up.

Topsoil Moisture Week Ending July 13,2014

	This	Last	Last	5-yr avg.
	week	week	year	avg.
Very short	5	4	7	8
Short	31	23	30	30
Adequate	57	64	61	58
Surplus	7	9	2	4

Adequate and surplus is 64 percent. Higher than the 5 year average and last year.

Subsoil Moisture Week Ending July 13,2014

	This week	Last	Last	5-yr
		week	year	avg.
Very short	5	4	5	8
Short	27	23	30	27
Adequate	62	66	62	59
Surplus	6	7	3	6

Adequate and surplus is 68 percent. Higher than the 5 year average and last year.

Winter Wheat Condition Week Ending July 13,2014

	Very	Poor	Fair	Good	Excellent
	poor				
This week	1	6	27	52	14
Last week	2	6	28	50	14
Last year	2	5	22	44	27
5-yr avg.	2	7	25	48	18

Good and excellent condition is 66 percent. Equal to 5 year average, but down from last year.

Spring Wheat Condition Week Ending July 13,2014

	Very	Poor	Fair	Good	Excellent
	poor				
This week	1	3	36	51	9
Last week	1	3	36	52	8
Last year	0	3	27	56	14
5-yr avg.	2	6	30	51	11

Good and excellent condition is 60 percent. Below the 5 year average and last year.

Durum Wheat Condition Week Ending July 13,2014

	Very	Poor	Fair	Good	Excellent
	poor				
This week	1	3	26	69	1
Last week	1	3	26	69	1
Last year	1	1	16	59	23
5-yr avg.	1	5	24	55	15

Good and excellent condition is 70 percent. Equal to the 5 year average, but below last year.

Barley Condition Week Ending July 13,2014

	Very	Poor	Fair	Good	Excellent
	poor				
This week	0	5	44	40	11
Last week	0	4	43	41	12
Last year	1	3	36	44	16
5-yr avg.	2	6	30	47	15

Good and excellent condition is 51 percent. Below the 5 year average and last year.

Headed Week Ending July 13,2014

	This	Last	Last	5-yr
	week	week	year	avg.
Barley	88	65	81	62
Oats	49	20	65	54
Durum Wheat	13	na	14	35
Spring Wheat	68	44	62	54
Winter Wheat	94	89	100	97

Turning Week Ending July 13,2014

	This	Last	Last	5-yr
	week	week	year	avg.
Barley	11	NA	11	10
Canola	25	24	24	11
Spring Wheat	7	NA	0	5
Winter Wheat	56	13	53	41

Harvested Week Ending July 13,2014

	This	Last	Last	5-yr
	week	week	year	avg.
Alfalfa- 1 st cutting	83	60	83	73
Other Hay- 1st cutting	73	55	72	66

Range & Pasture Feed Condition Week Ending July 13,2014

	Very	Poor	Fair	Good	Excellent
	poor				
This week	4	13	31	38	14
Last week	3	12	30	40	15
Last year	4	12	34	42	8
5-yr avg.	7	12	25	38	18

Good and excellent condition is 52 percent. Below the 5 year average, but above last year.

Summary Week ending July 13,2014

- Soil moistures are above last year and the five year averages
- 6.2 days were suitable for field work during the week, compared to 6.4 days last year and the five year average of 6.2 days
- Small grains are heading and starting to turn
- Pasture and range conditions are slightly better than last year but slightly below the 5 year average.

Upcoming Releases

 Cash Rents and Land Values released on August 1

 August Crop Production released on August 12

USDA, NASS, Montana Field Office

Eric Sommer, State Statistician

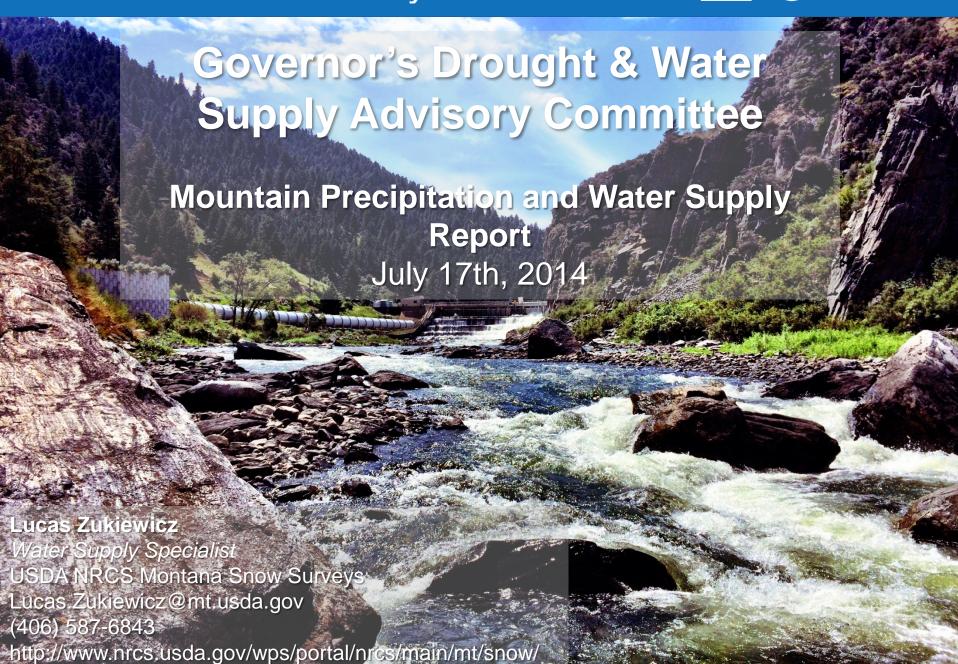
1-800-835-2612 or 406-441-1240

Email: nass-mt@nass.usda.gov

www.nass.usda.gov/mt/

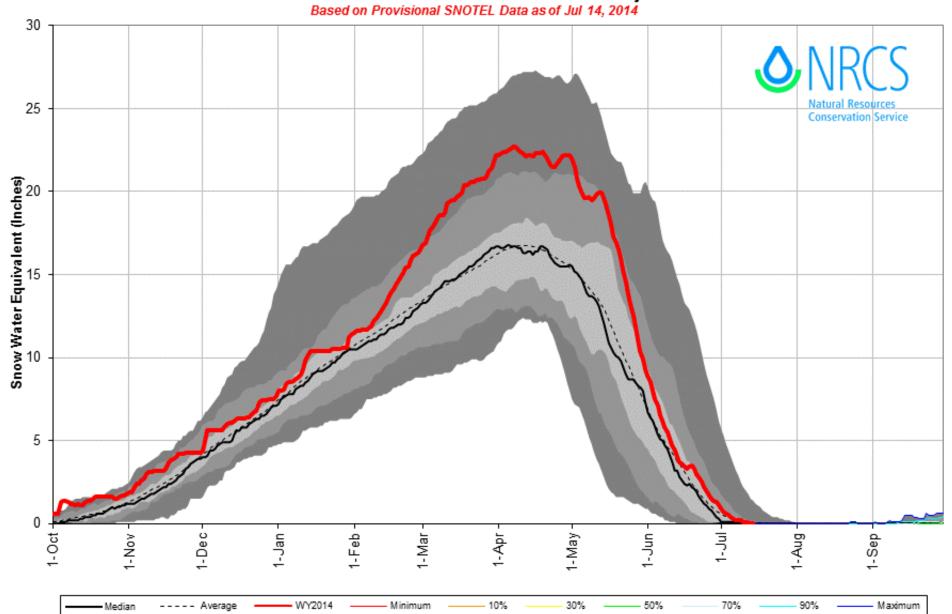
http://www.nass.usda.gov/Statistics_by_State/Montana/index.asp





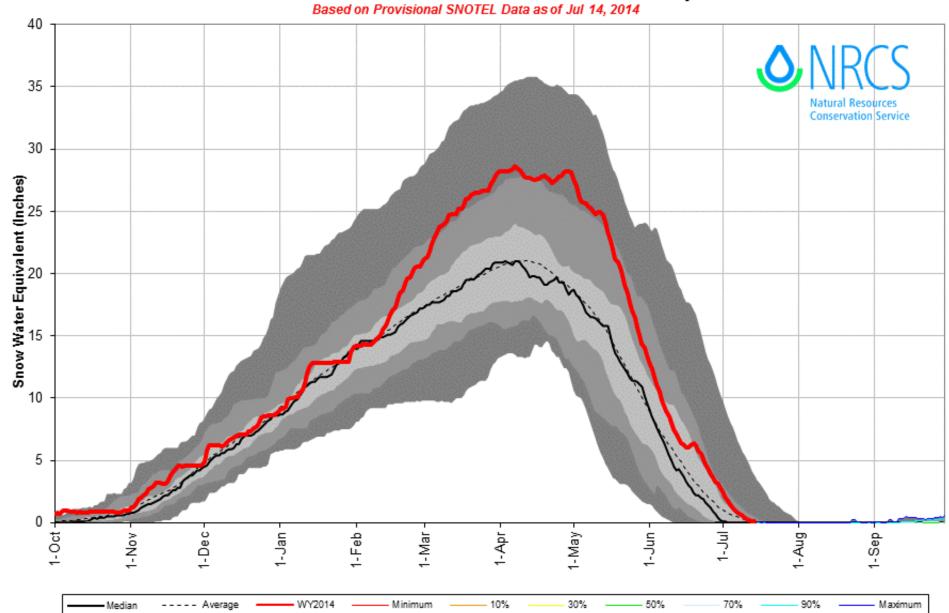


Montana Watersheds with Non-Exceedence Projections



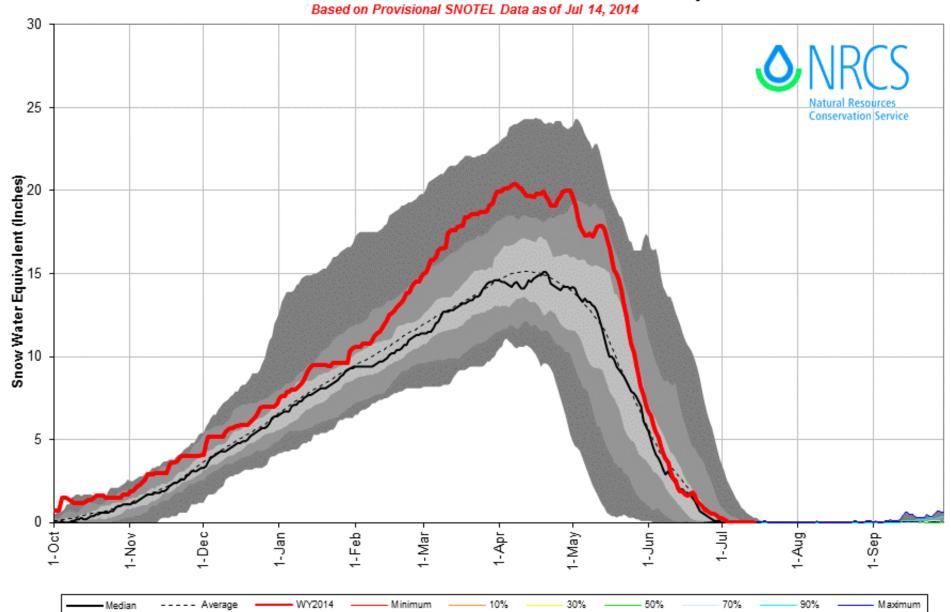


Columbia River Basin in Montana with Non-Exceedence Projections



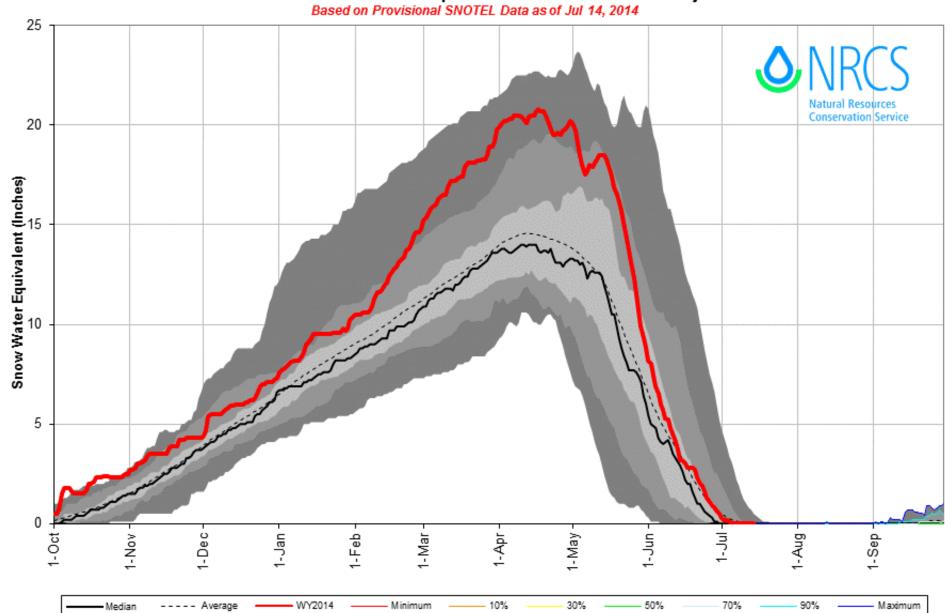


Missouri River Basin above Ft. Peck with Non-Exceedence Projections





Yellowstone River Basin Snowpack with Non-Exceedence Projections

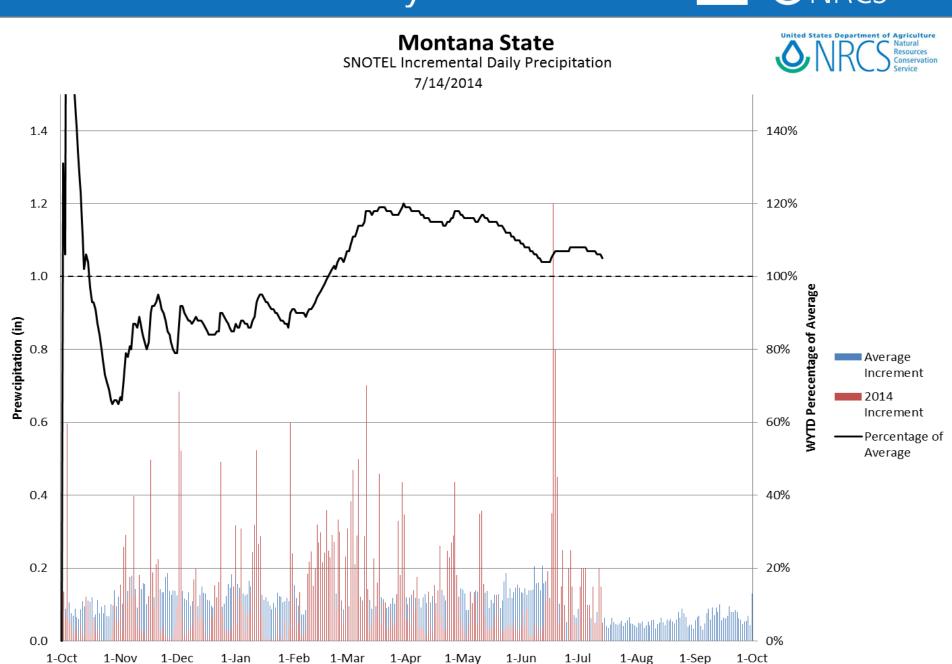




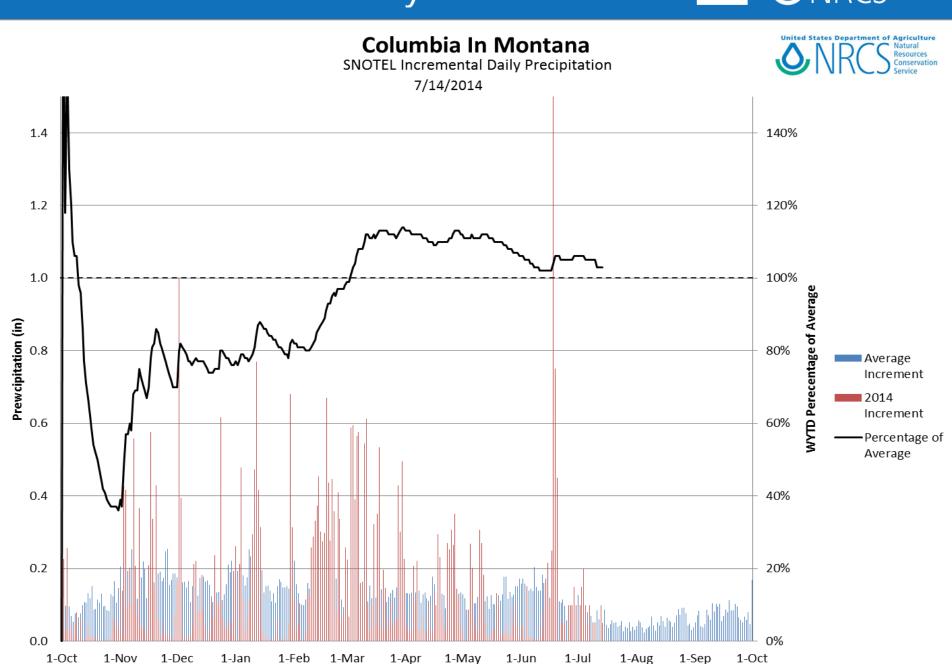
Montana Snowpack Summary

- Only 1 SNOTEL site has snow remaining on pillow:
 - •Flattop Mountain (Glacier National Park) will be melted out this weekend
- Snowpack melted out 1-3 weeks later than average on the west side of the Divide, and near to slightly after average east of the Divide
- Snowpack at higher elevations has helped to sustain flows after snowmelt peaks.
 Cooler weather during the later part of June helped to slow high elevation melt and retain snowpack which is critical for recession flows.

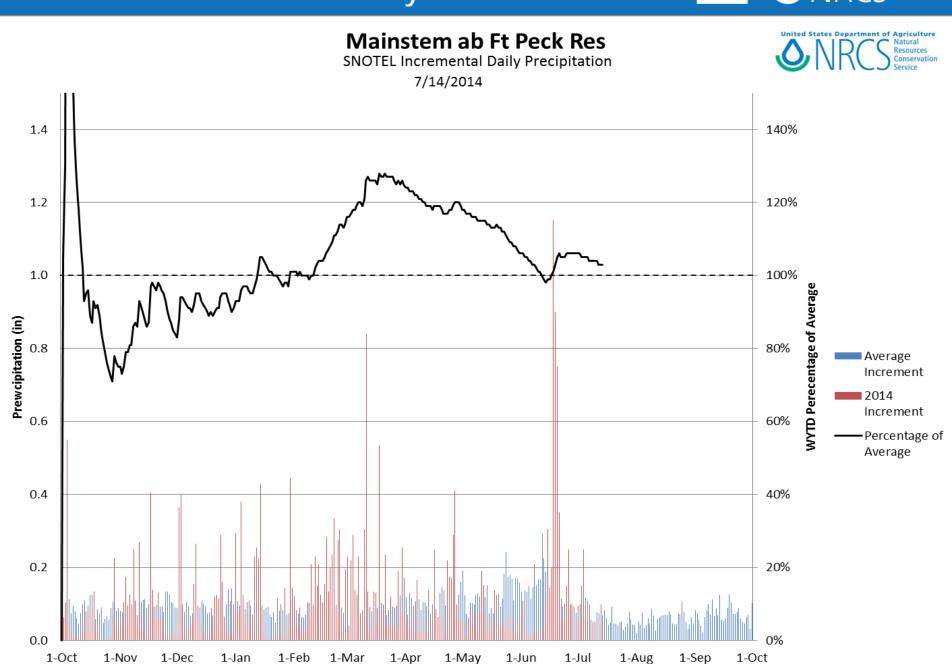




















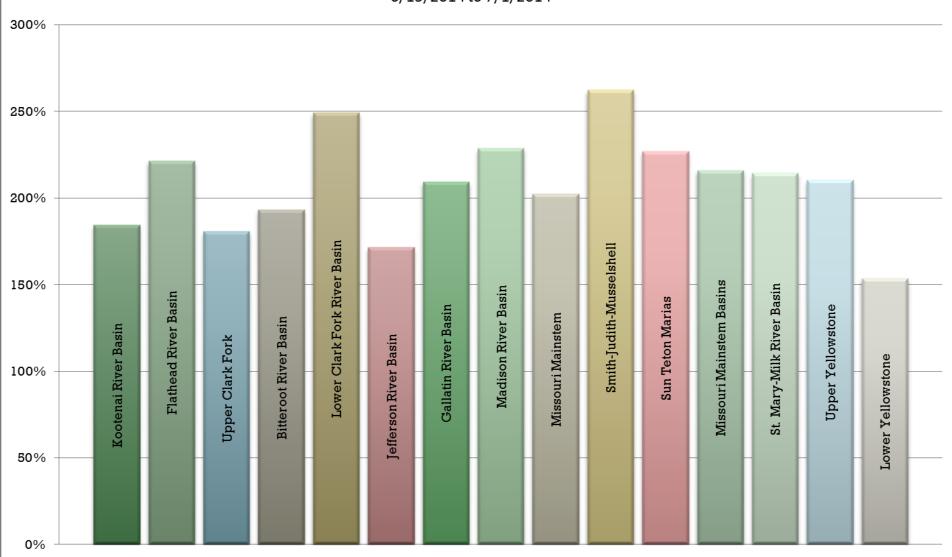




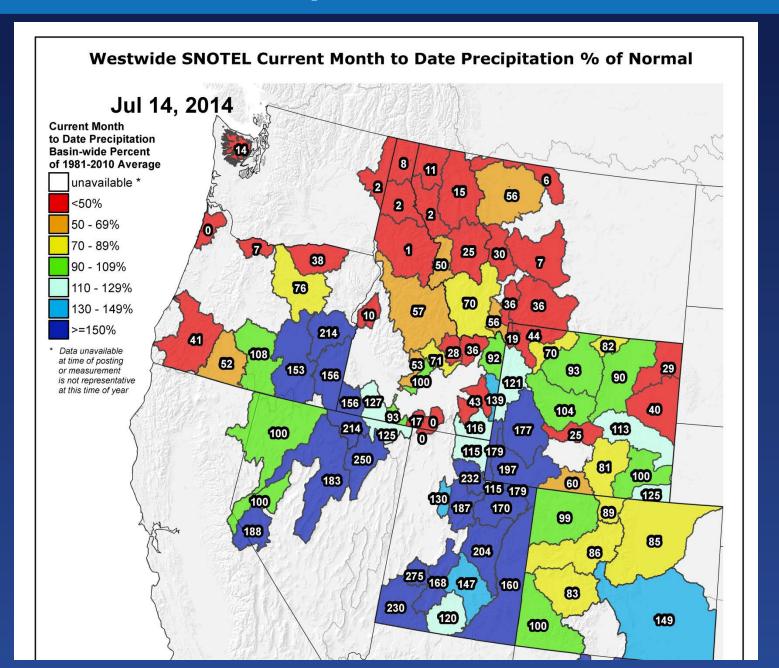


Percentage of Average Precipitation

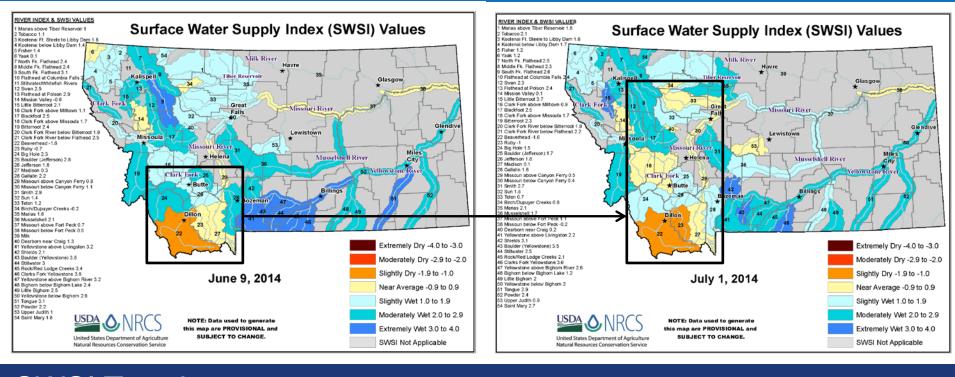
Data from SNOTEL sites only 6/15/2014 to 7/1/2014











SWSI Trends

- Below normal precipitation during the first half of June dropped some basins one category.
- Overall, surface water supply and storage has been good this spring/summer
- Two basin SWSIs indicate dry (negative conditions)
 - Ruby River basin: -1.0 (down slightly from last month)
 - Beaverhead River basin: -1.6

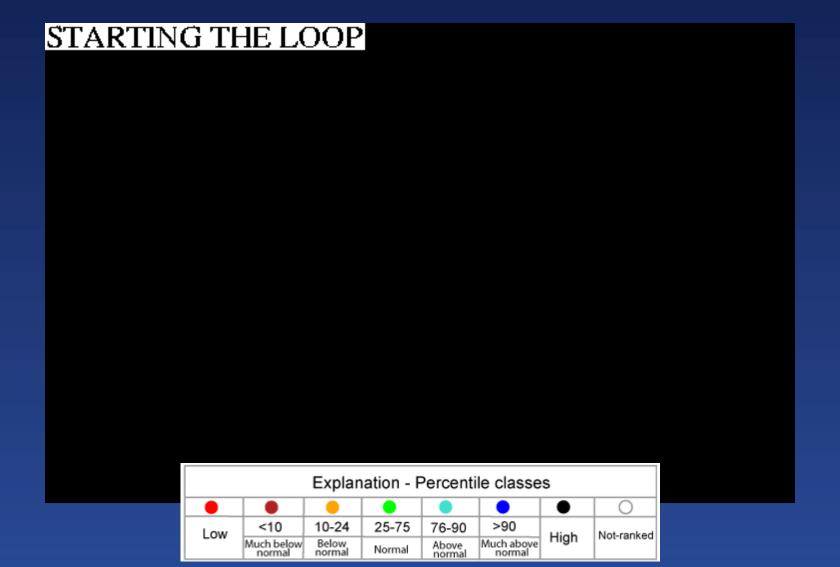


June 2014 Streamflows

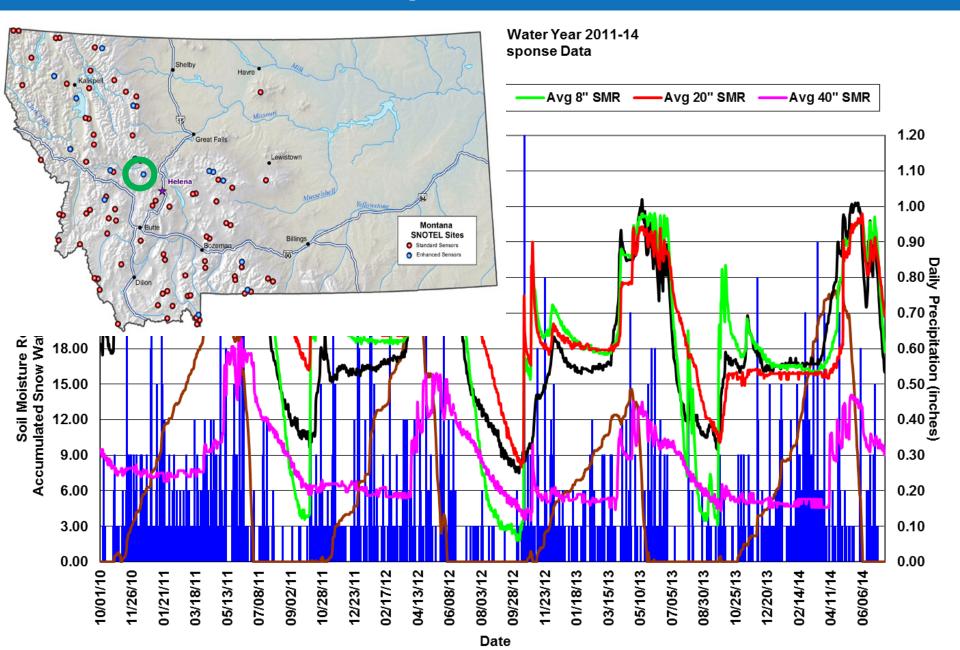




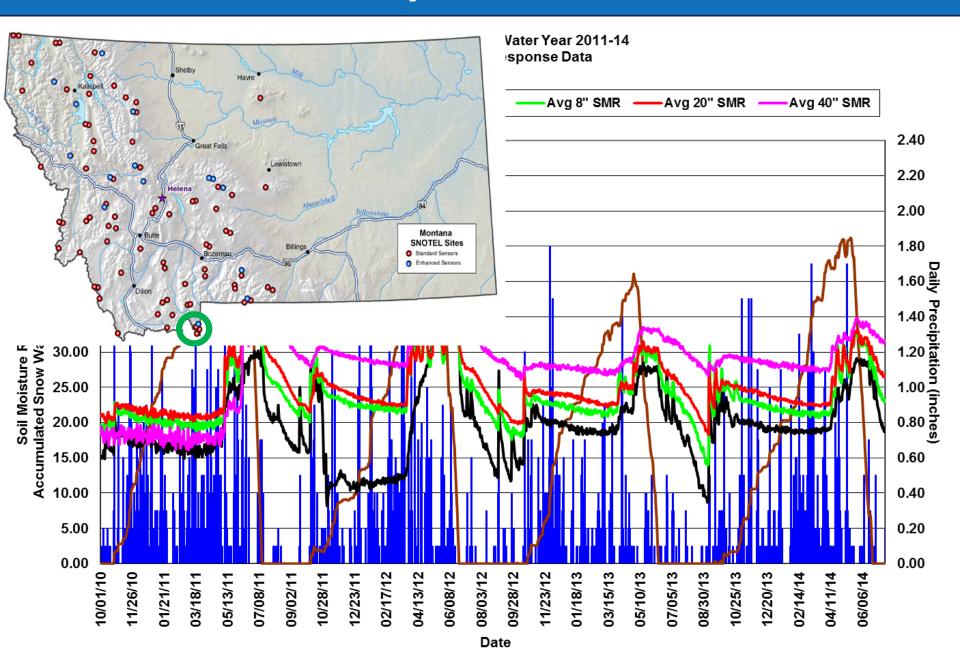
July 2014 Streamflows



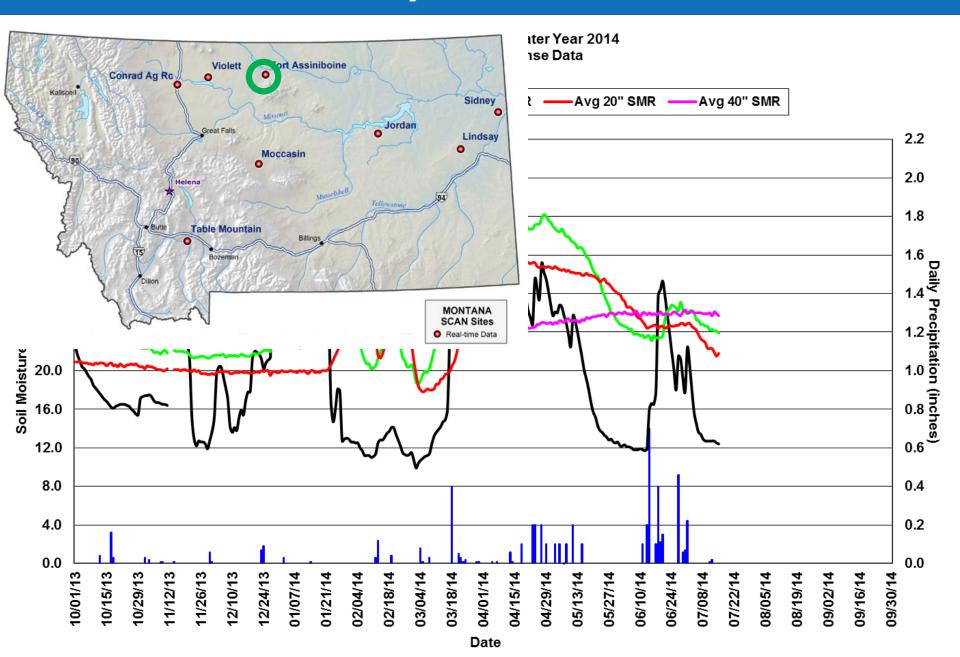




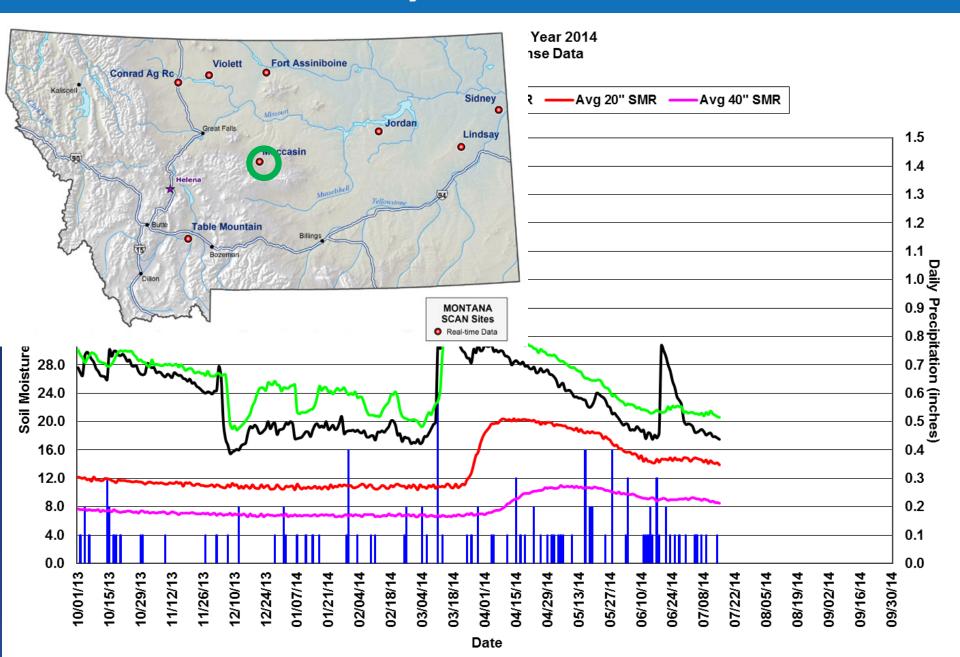




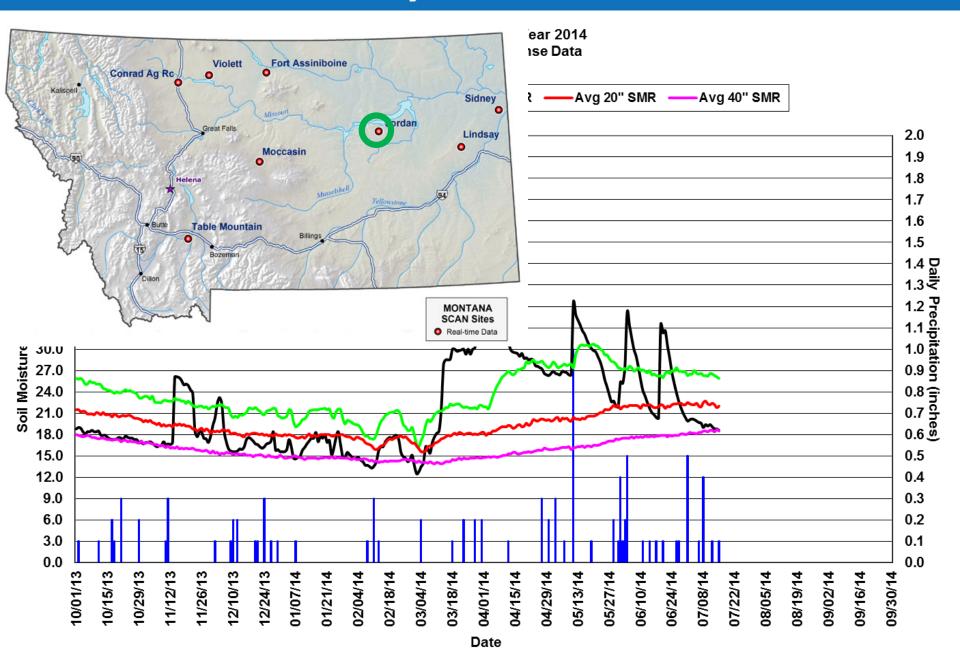




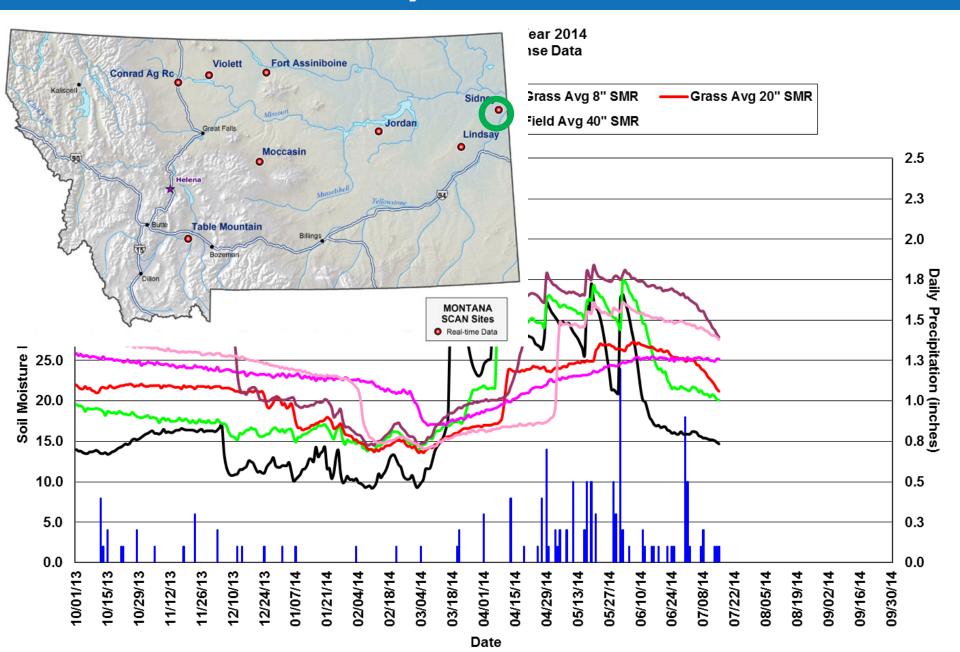














Summary

- The second half of June was more plentiful regarding mountain precipitation, since July 1st precipitation has been well below average in most parts of the state.
- Summer months are not climatologically favored for precipitation in the mountains, so widespread precipitation events are not normally anticipated.
- Transition to El Nino could be underway, meaning less precipitation during summer and fall months?
- Soil moisture has peaked in the mountains from spring moisture and snowmelt some drying has begun from the lack of precipitation experienced mid-May through mid-June and the first half of July.
- SCAN sites in eastern basins are also seeing drying from the dry periods and above average temperatures.
- Consult the June 1st Water Supply Outlook Report for more detailed information on June1st –September 30th flow forecasts.



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If you wish to file an employment complaint, you must contact your agency's <u>EEO Counselor</u> within 45 days of the date of the alleged discriminatory act, event, or in the case of a personnel action. Additional information can be found online at http://www.ascr.usda.gov/complaint_filing_file.html.

If you wish to file a Civil Rights program complaint of discrimination, complete the <u>USDA Program Discrimination Complaint Form</u>, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9419, by fax at (202) 690-7442, or email at program.intake@usda.gov.

Individuals who are deaf, hard of hearing or have speech disabilities and you wish to file either an EEO or program complaint please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish). Persons with disabilities, who wish to file a program complaint, please see information above on how to contact us by mail or by email. If you require alternative means of communication for program information (e.g., Braille, large print, audiotape, etc.), please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

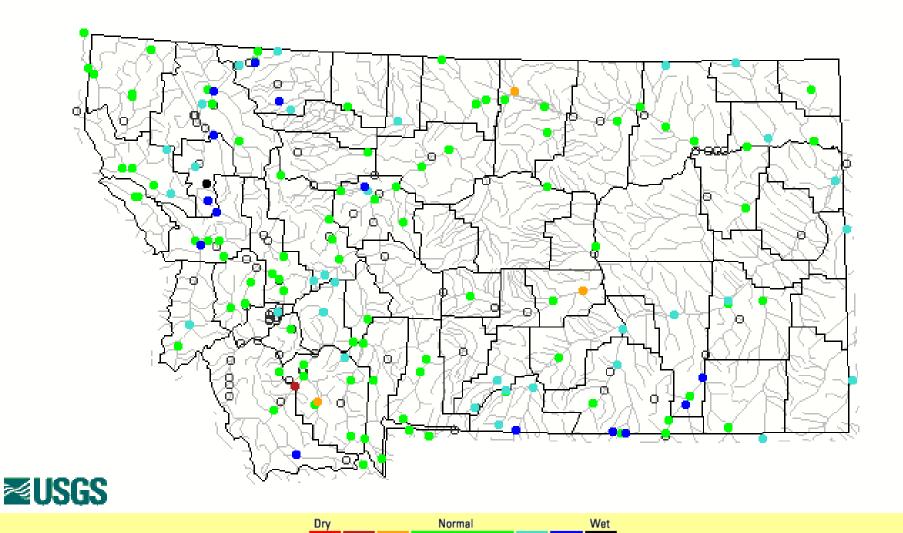




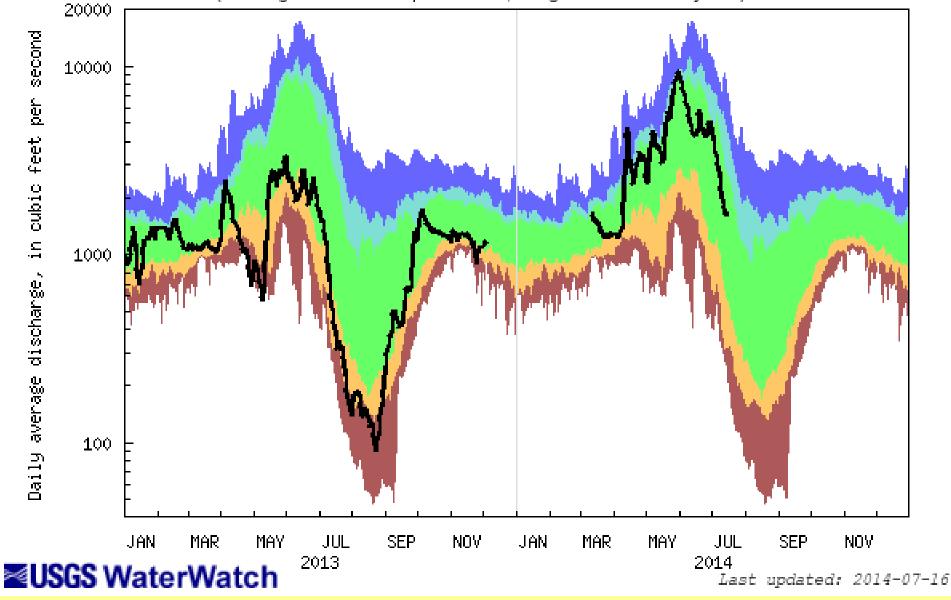


DAILY STREAMFLOW CONDITIONS

Wednesday, July 16, 2014 12:00ET

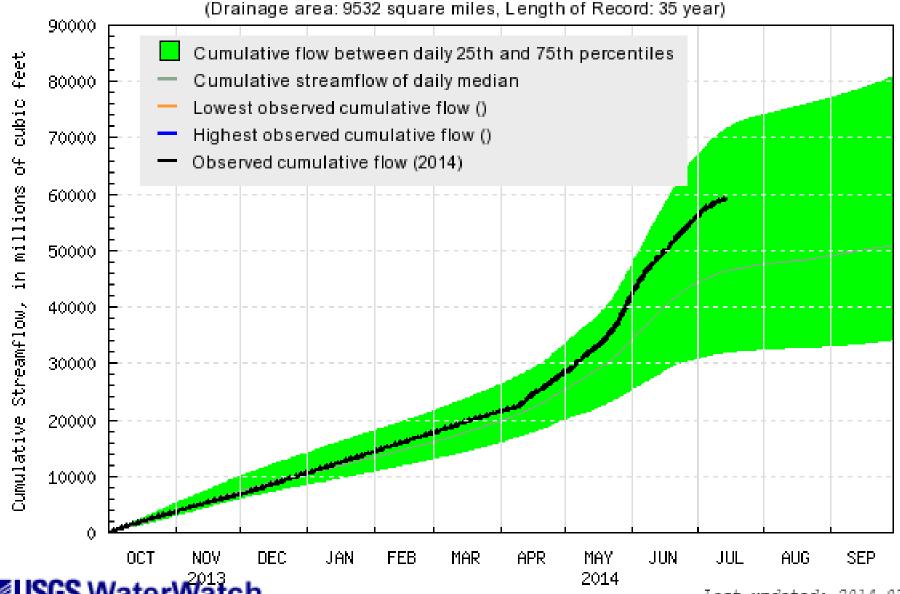


USGS 06036650 Jefferson River near Three Forks MT (Drainage Area: 9532 square miles, Length of Record: 35 years)



Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

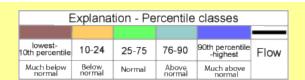
USGS 06036650 Jefferson River near Three Forks MT (Drainage area: 9532 square miles, Length of Record: 35 year)



■USGS WaterWatch

Last updated: 2014-07-16

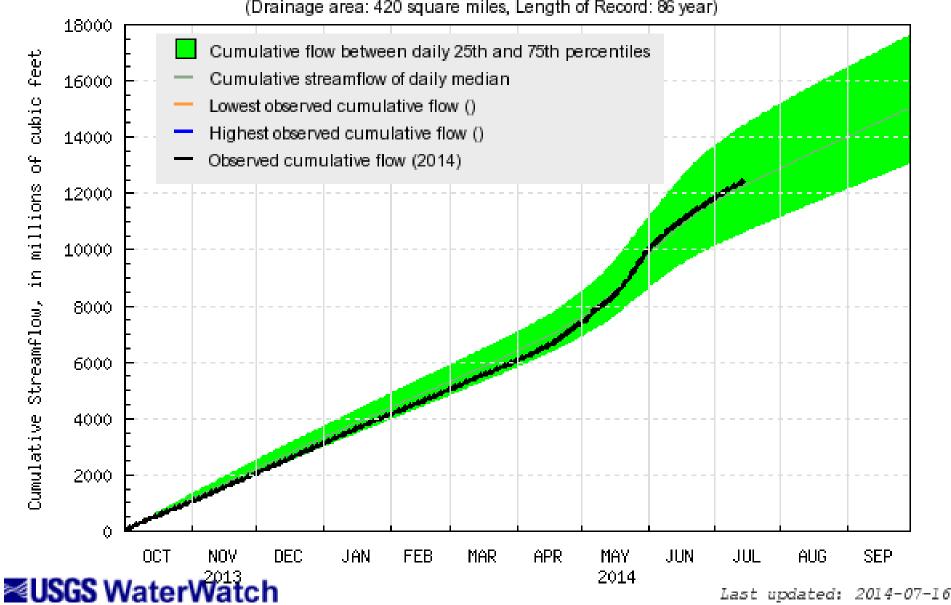
USGS 06037500 Madison River near West Yellowstone MT (Drainage Area: 420 square miles, Length of Record: 100 years) 3000 second in cubic feet per 1000 discharge, Daily average JAN MAR MAY JUL SEP NOV JAN MAR MAY JUL SEP NOV 2013 2014



Last updated: 2014-07-16

■USGS WaterWatch

USGS 06037500 Madison River near West Yellowstone MT (Drainage area: 420 square miles, Length of Record: 86 year)



USGS 06043500 Gallatin River near Gallatin Gateway MT (Drainage Area: 825 square miles, Length of Record: 124 years)

9000

1000

100

JAN

ZUSGS WaterWatch

MAR

MAY

JUL

2013

SEP

second

in cubic feet per

discharge,

average

Daily



JAN

MAR

MAY

JUL

2014

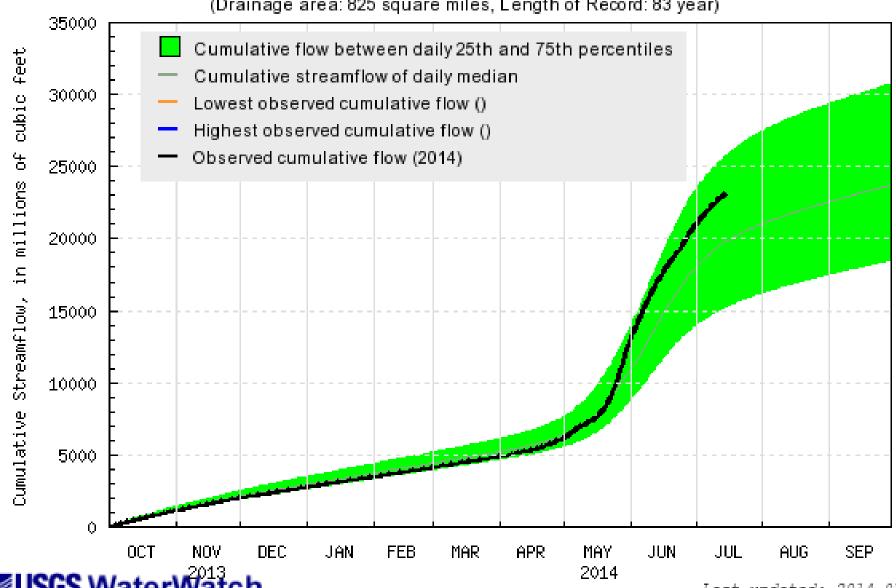
SEP

NOV

Last updated: 2014-07-16

NOV

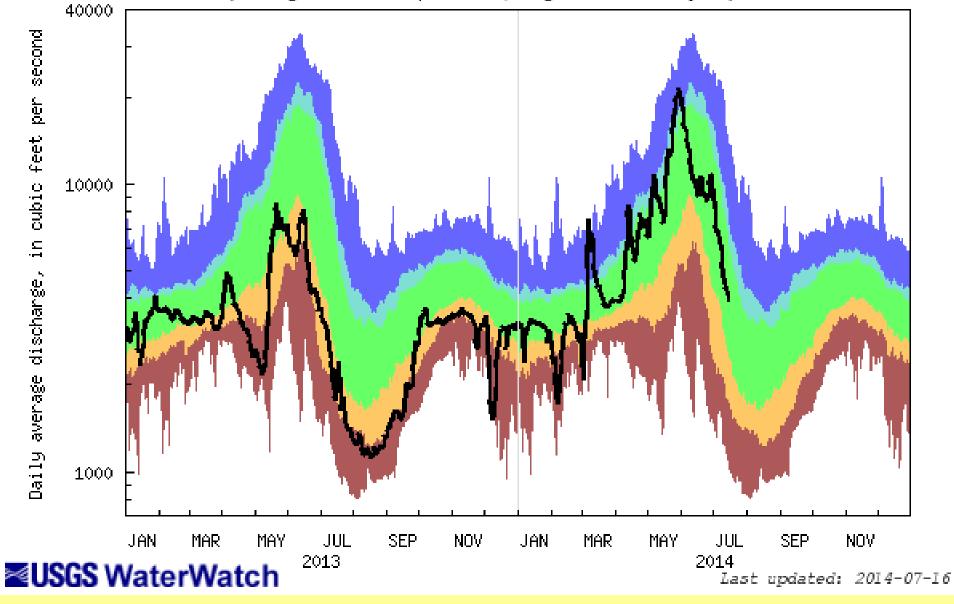
USGS 06043500 Gallatin River near Gallatin Gateway MT (Drainage area: 825 square miles, Length of Record: 83 year)



■USGS WaterWatch

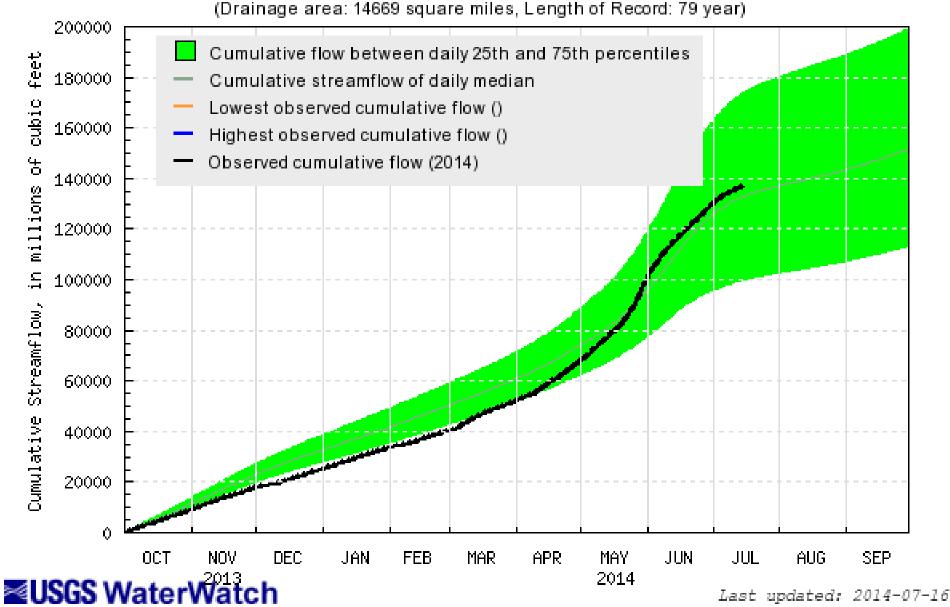
Last updated: 2014-07-16

USGS 06054500 Missouri River at Toston MT (Drainage Area: 14669 square miles, Length of Record: 123 years)

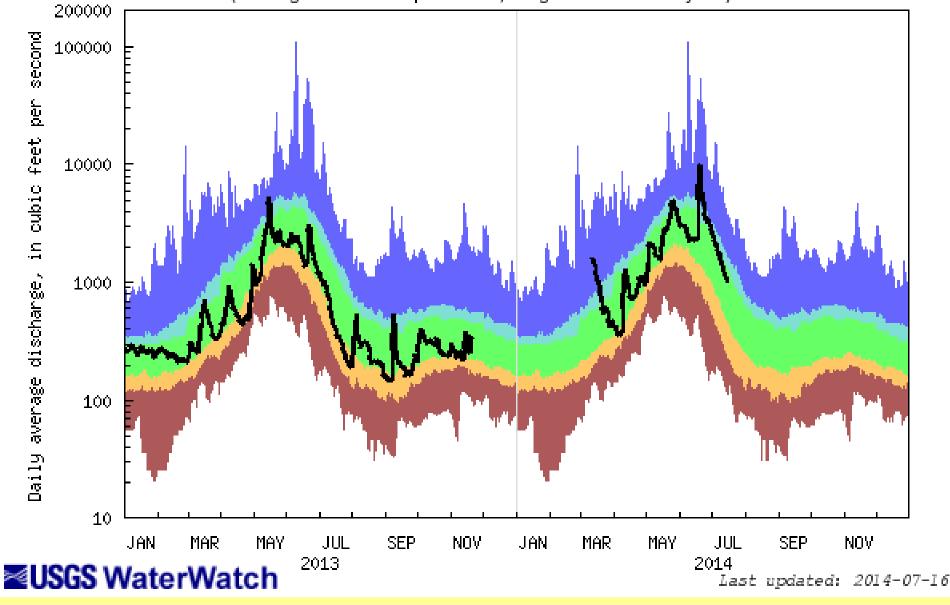


Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 06054500 Missouri River at Toston MT (Drainage area: 14669 square miles, Length of Record: 79 year)

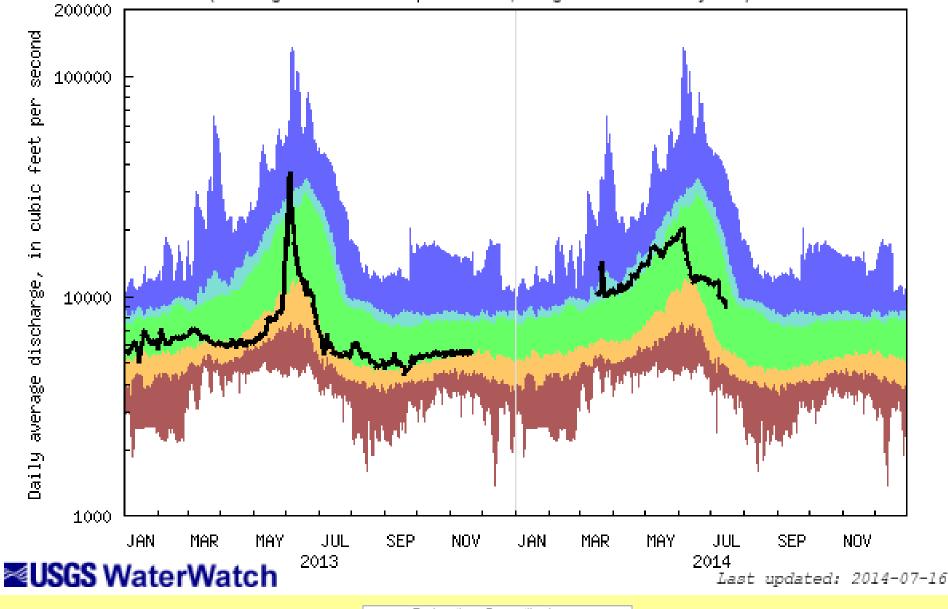


USGS 06099500 Marias River near Shelby MT (Drainage Area: 3242 square miles, Length of Record: 111 years)



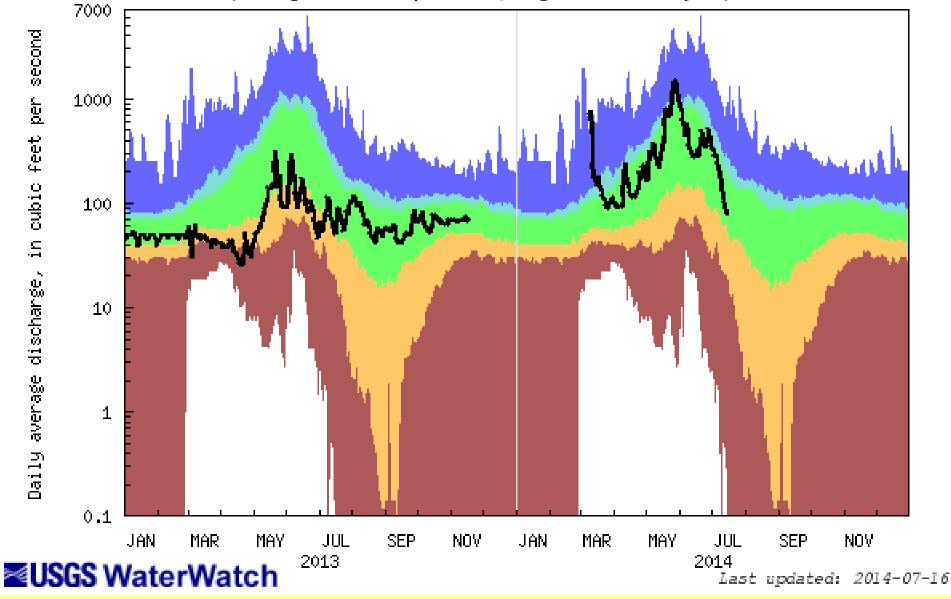


USGS 06115200 Missouri River near Landusky MT (Drainage Area: 40987 square miles, Length of Record: 79 years)



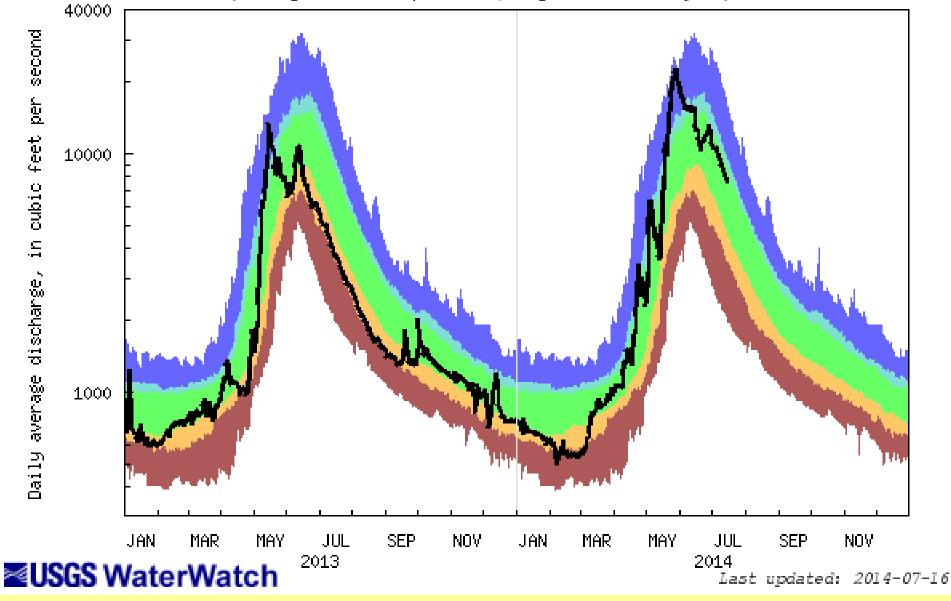


USGS 06120500 Musselshell River at Harlowton MT (Drainage Area: 1125 square miles, Length of Record: 106 years)



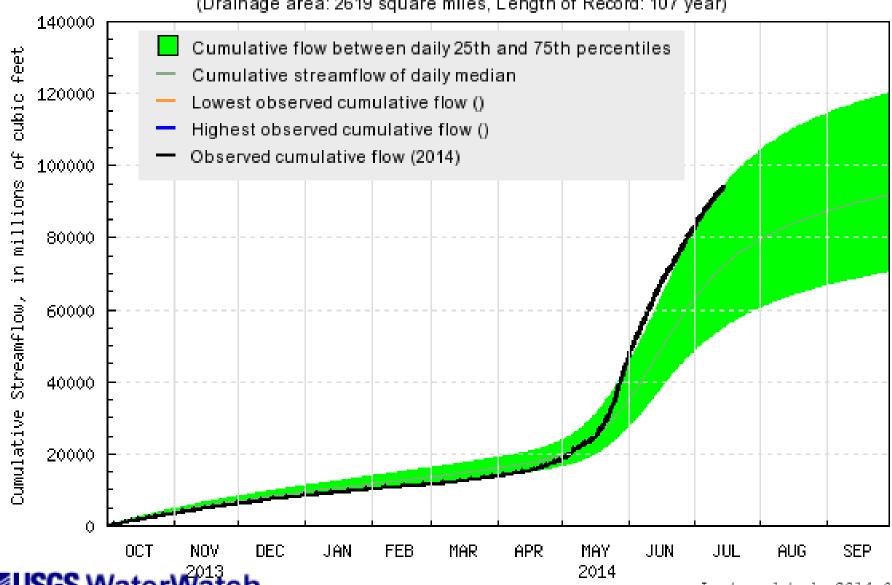
Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 06191500 Yellowstone River at Corwin Springs MT (Drainage Area: 2619 square miles, Length of Record: 124 years)

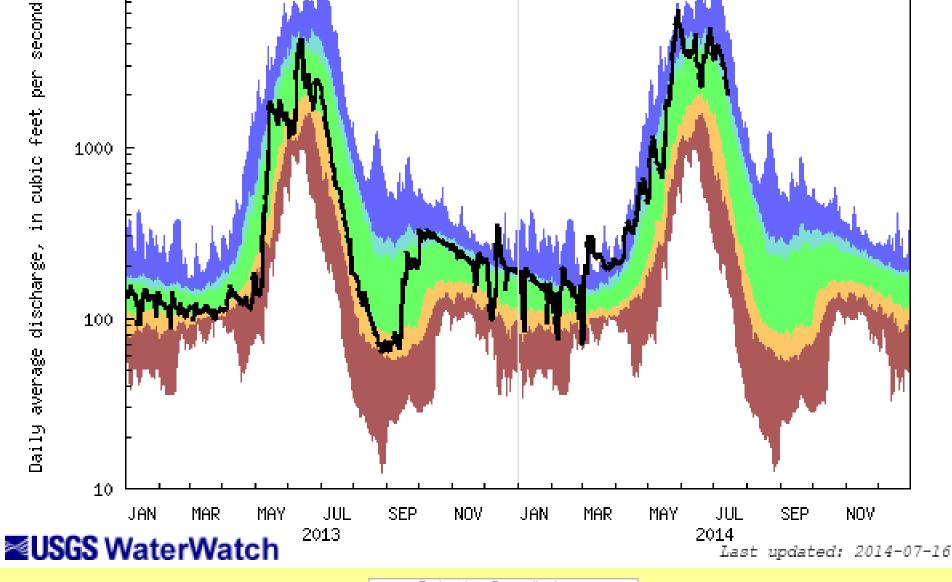


Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 06191500 Yellowstone River at Corwin Springs MT (Drainage area: 2619 square miles, Length of Record: 107 year)



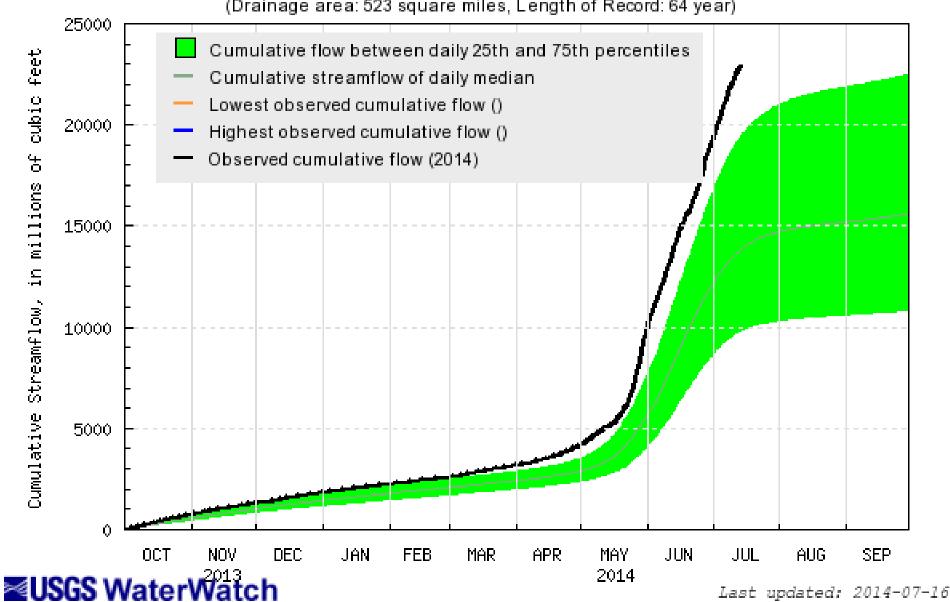
USGS 06200000 Boulder River at Big Timber MT (Drainage Area: 523 square miles, Length of Record: 66 years)



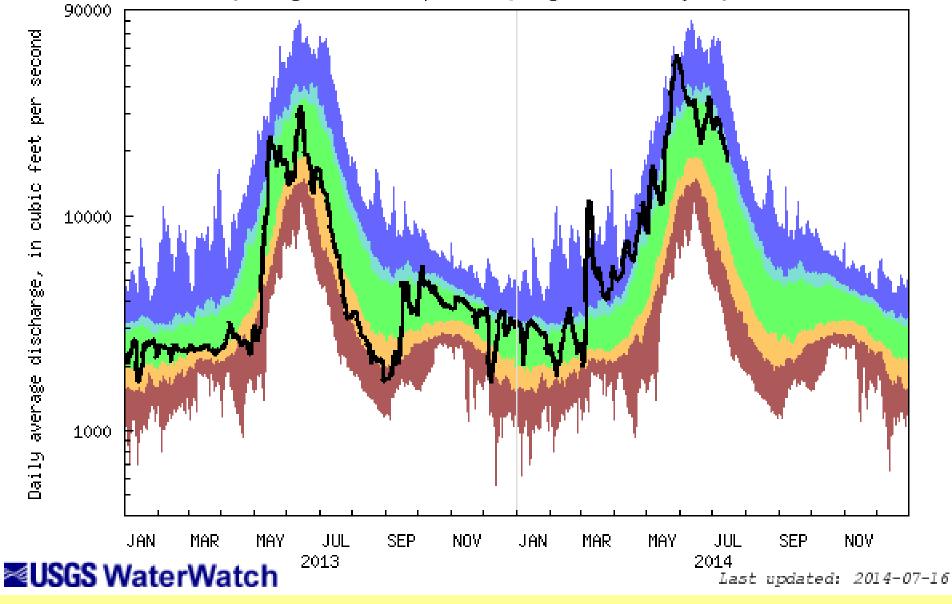
9000

Explanation - Percentile classes lowest-90th percentile -highest 10-24 25-75 Flow Below normal Much below normal Much above normal Normal

USGS 06200000 Boulder River at Big Timber MT (Drainage area: 523 square miles, Length of Record: 64 year)

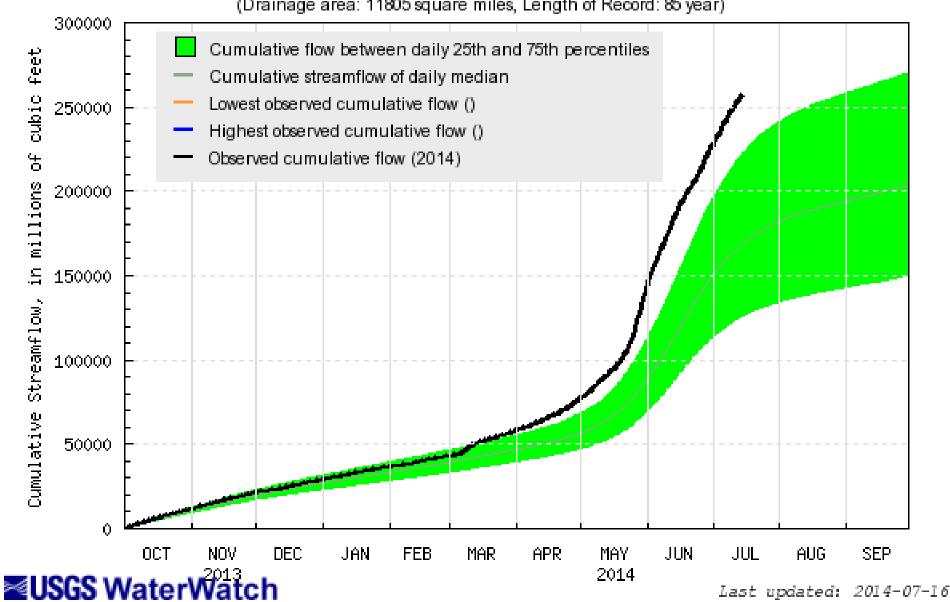


USGS 06214500 Yellowstone River at Billings MT (Drainage Area: 11805 square miles, Length of Record: 85 years)

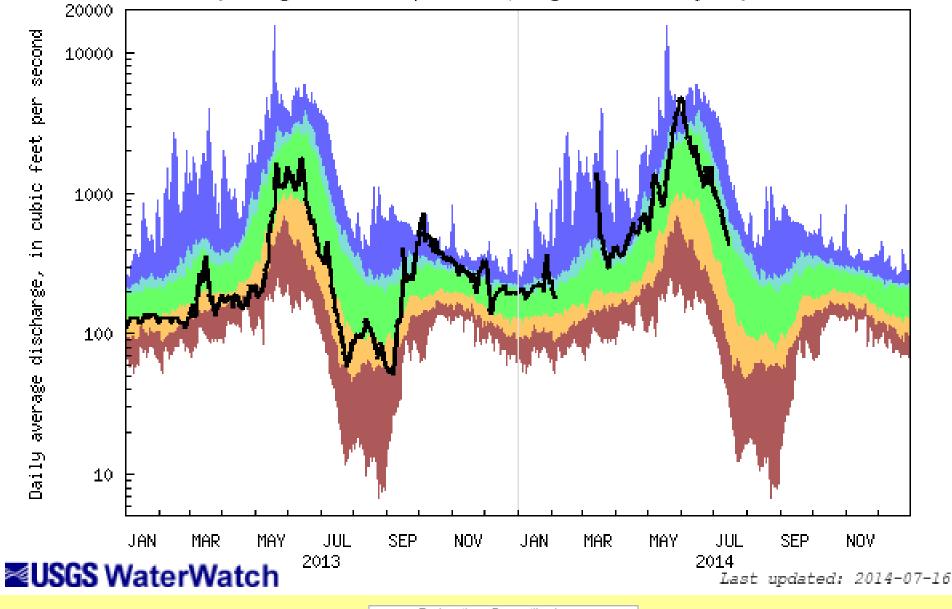


Explanation - Percentile classes							
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow		
Much below normal	Below normal	Normal	Above normal	Much above normal			

USGS 06214500 Yellowstone River at Billings MT (Drainage area: 11805 square miles, Length of Record: 85 year)

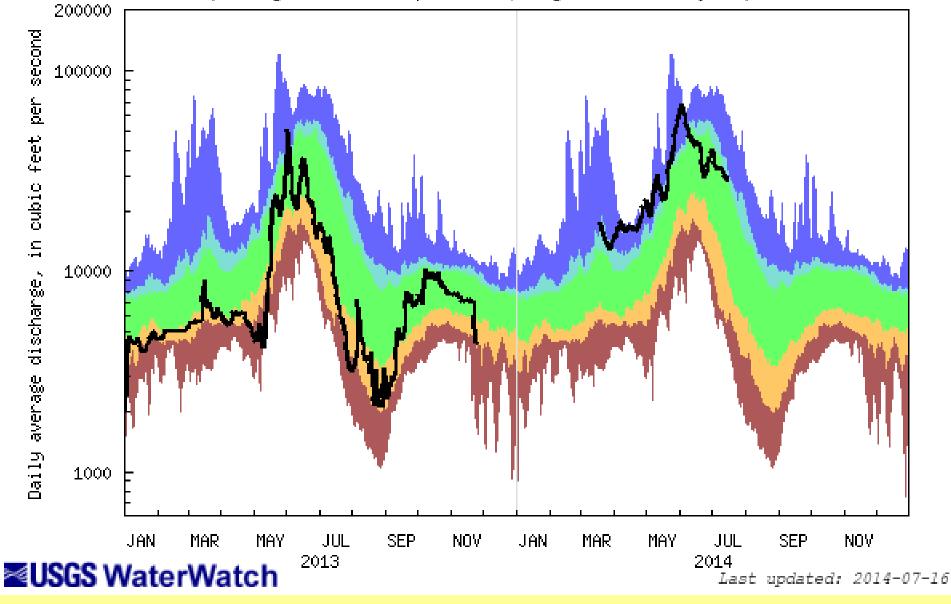


USGS 06306300 Tongue River at State Line nr Decker MT (Drainage Area: 1453 square miles, Length of Record: 53 years)



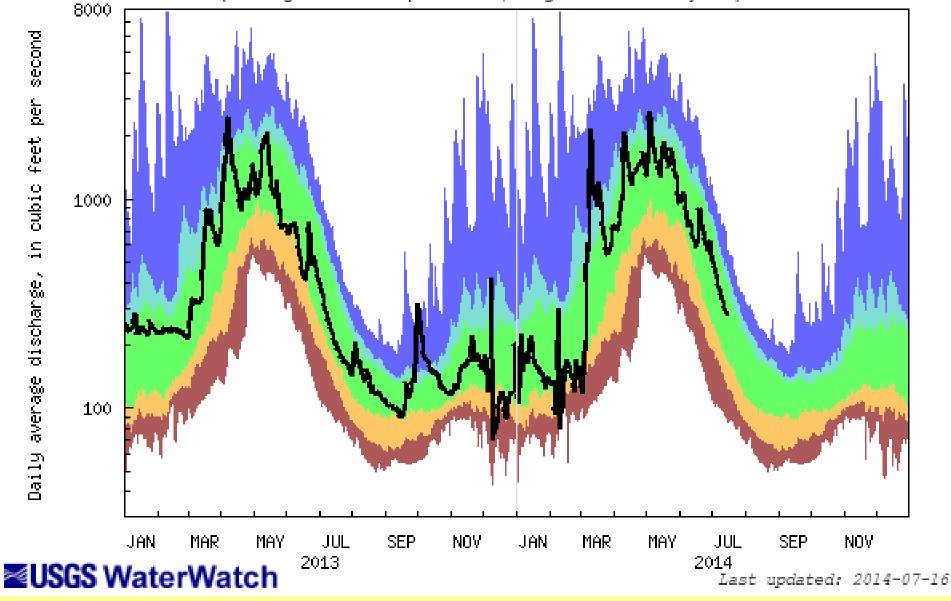
I	Explanation - Percentile classes						
١							
	lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
ı	Much below normal	Below normal	Normal	Above normal	Much above normal		

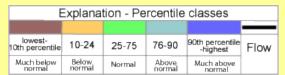
USGS 06329500 Yellowstone River near Sidney MT (Drainage Area: 69083 square miles, Length of Record: 47 years)



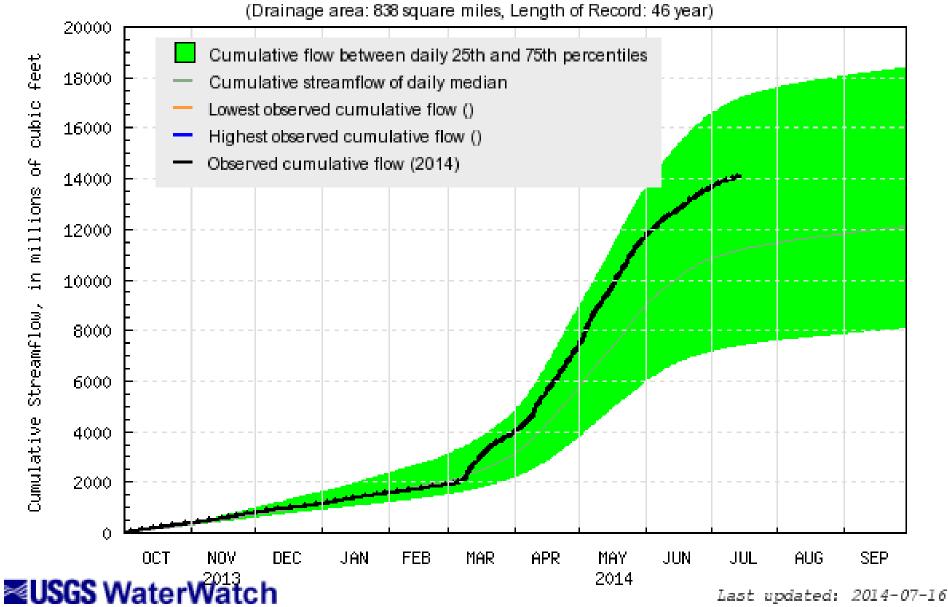
Explanation - Percentile classes							
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow		
Much below normal	Below normal	Normal	Above normal	Much above normal			

USGS 12302055 Fisher River near Libby MT (Drainage Area: 838 square miles, Length of Record: 46 years)

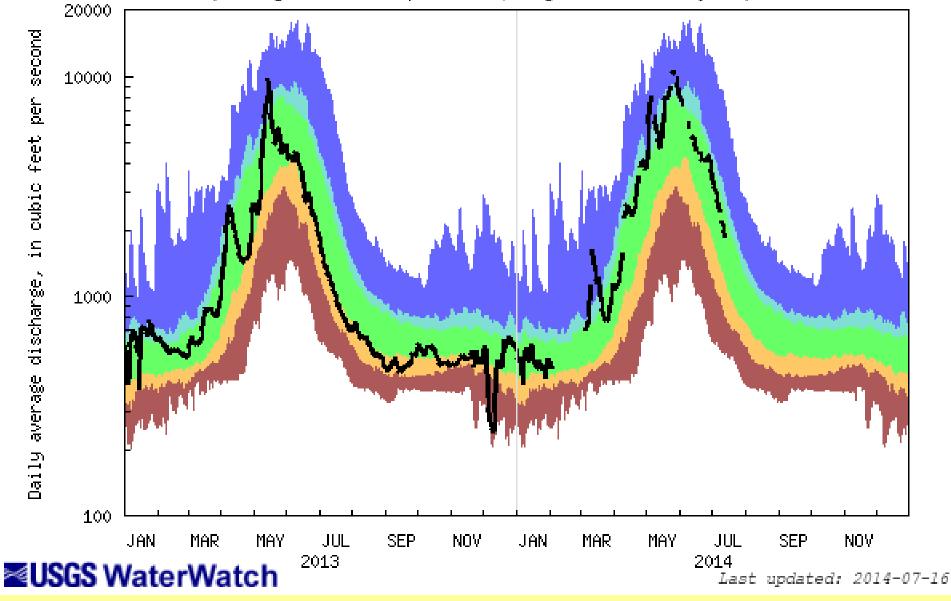




USGS 12302055 Fisher River near Libby MT Drainage area: 838 square miles, Length of Record: 46 year).

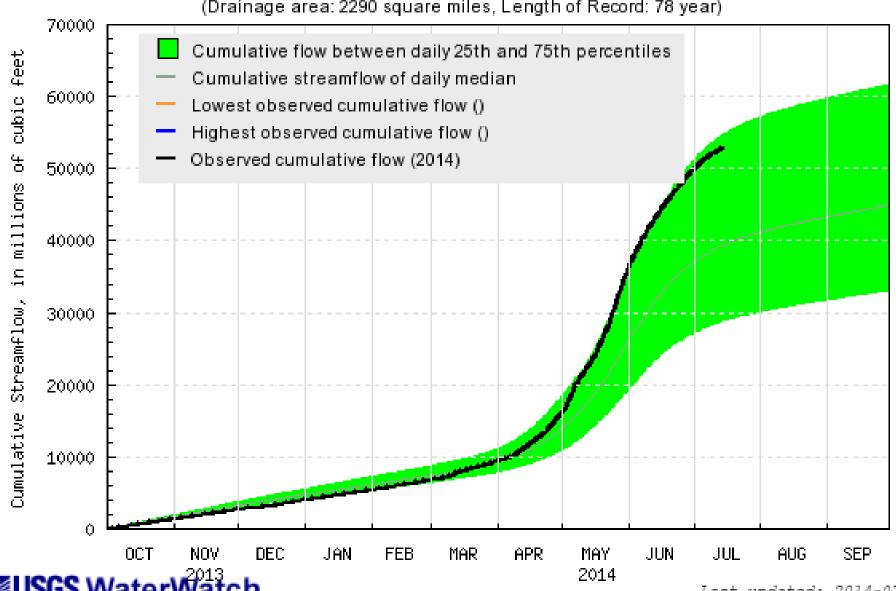


USGS 12340000 Blackfoot River near Bonner MT (Drainage Area: 2290 square miles, Length of Record: 115 years)

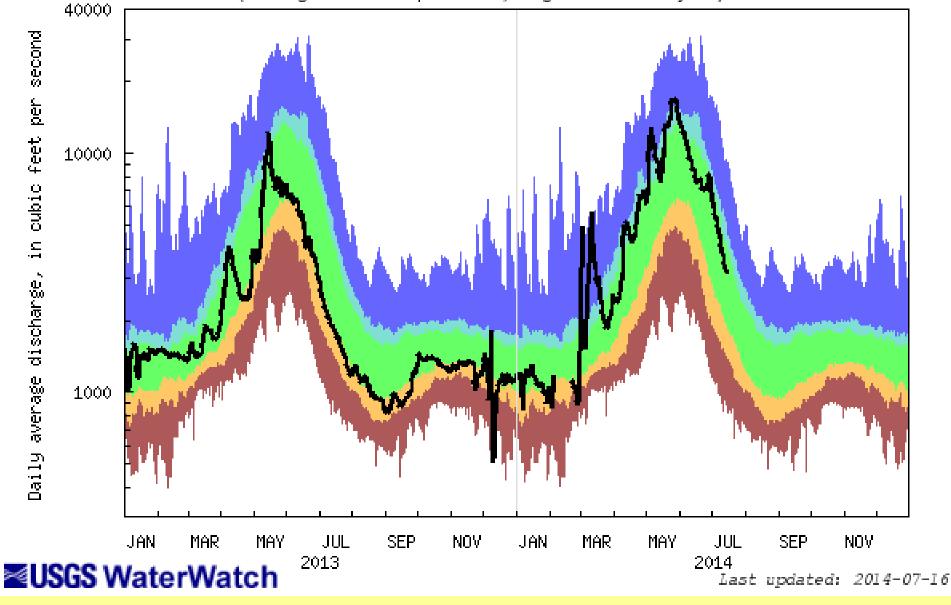


Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 12340000 Blackfoot River near Bonner MT (Drainage area: 2290 square miles, Length of Record: 78 year)

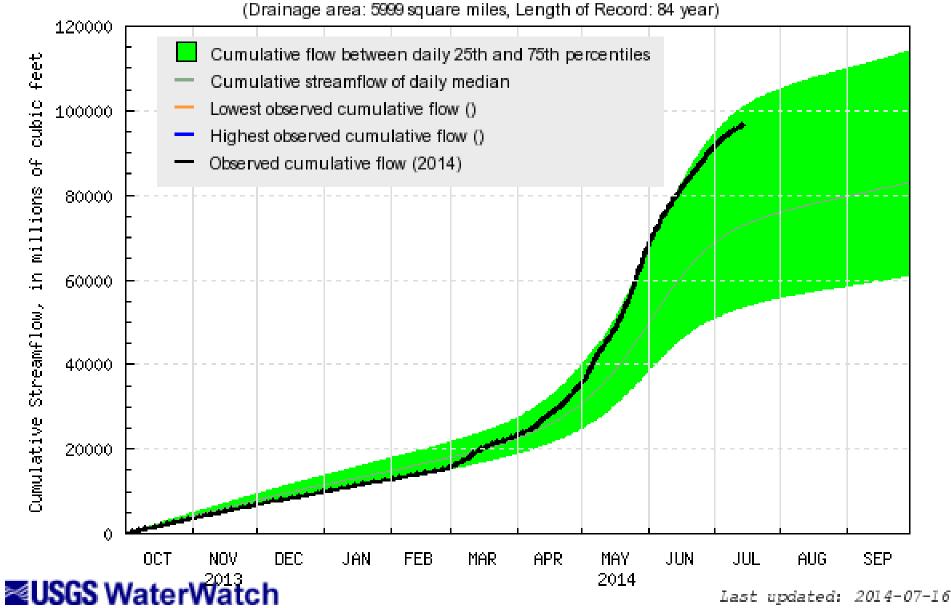


USGS 12340500 Clark Fork above Missoula MT (Drainage Area: 5999 square miles, Length of Record: 84 years)

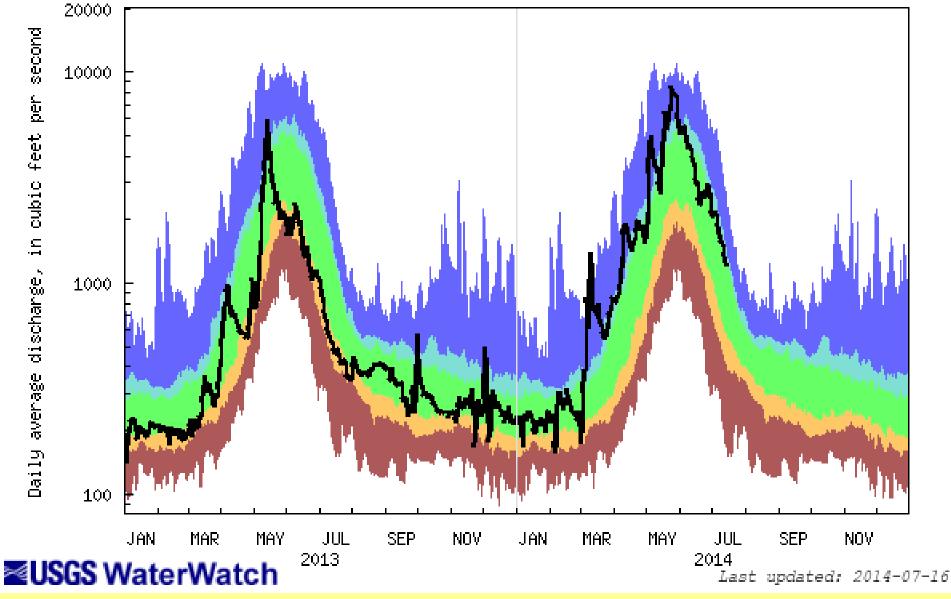




USGS 12340500 Clark Fork above Missoula MT Drainage area: 5999 square miles. Length of Record: 84 year:

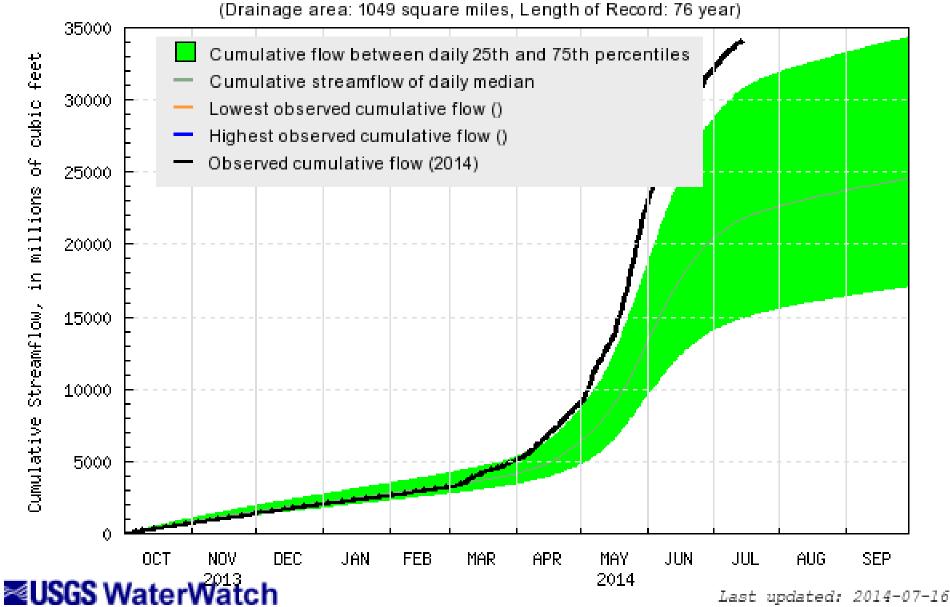


USGS 12344000 Bitterroot River near Darby MT (Drainage Area: 1049 square miles, Length of Record: 76 years)

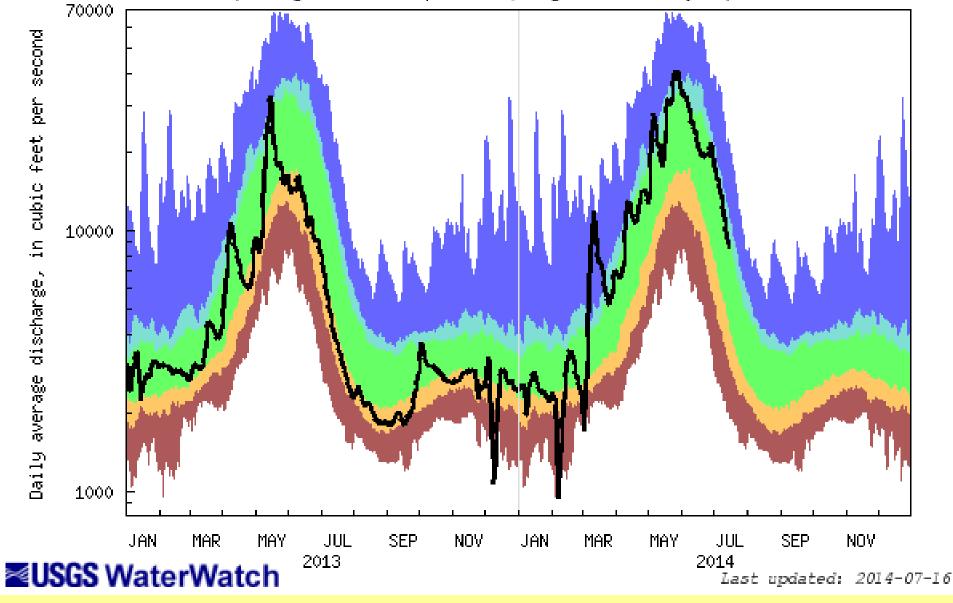


Explanation - Percentile classes						
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow	
Much below normal	Below normal	Normal	Above normal	Much above normal		

USGS 12344000 Bitterroot River near Darby MT Drainage area: 1049 square miles, Length of Record: 76 year)

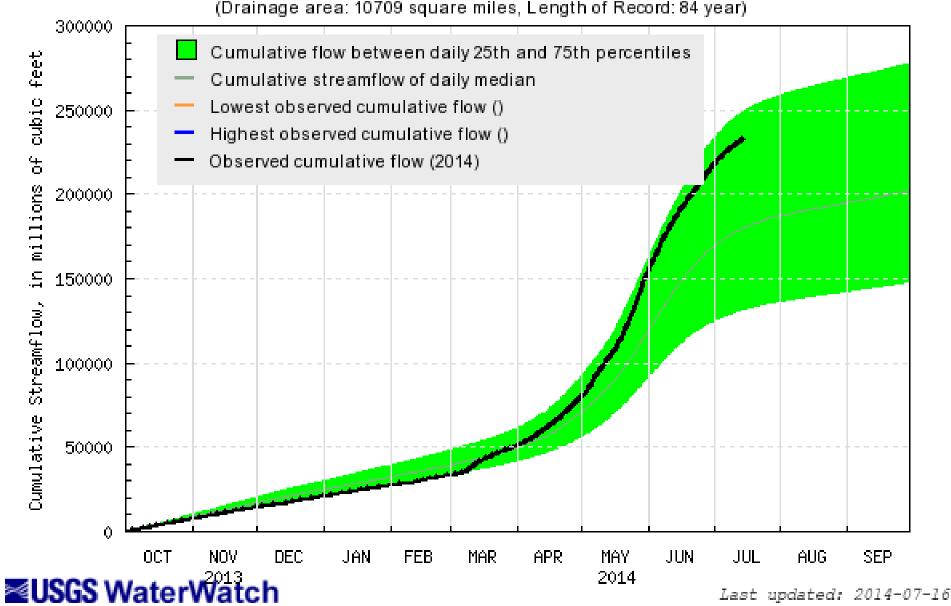


USGS 12354500 Clark Fork at St. Regis MT (Drainage Area: 10709 square miles, Length of Record: 84 years)

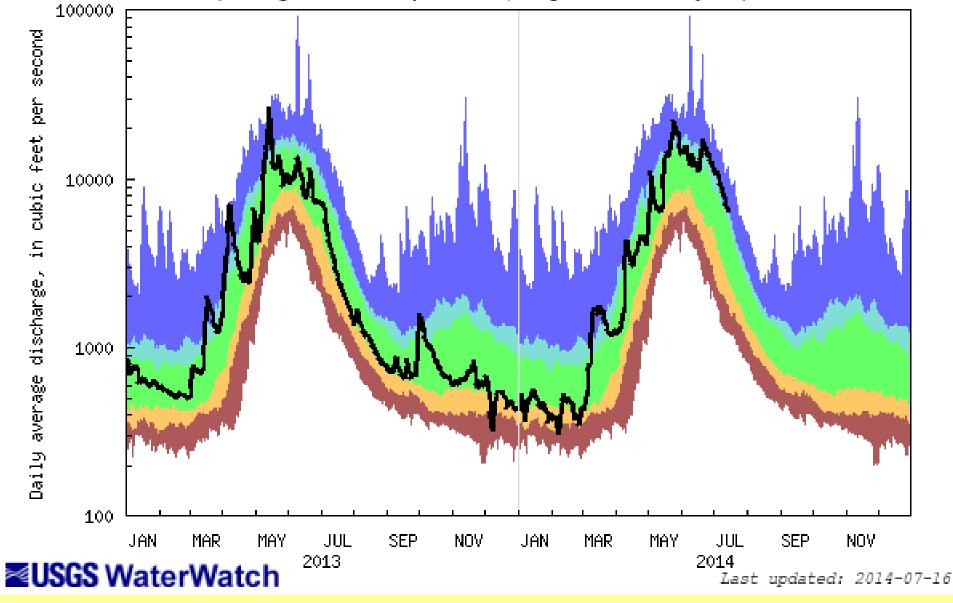


Explanation - Percentile classes							
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow		
Much below normal	Below normal	Normal	Above normal	Much above normal			

USGS 12354500 Clark Fork at St. Regis MT (Drainage area: 10709 square miles, Length of Record: 84 year)

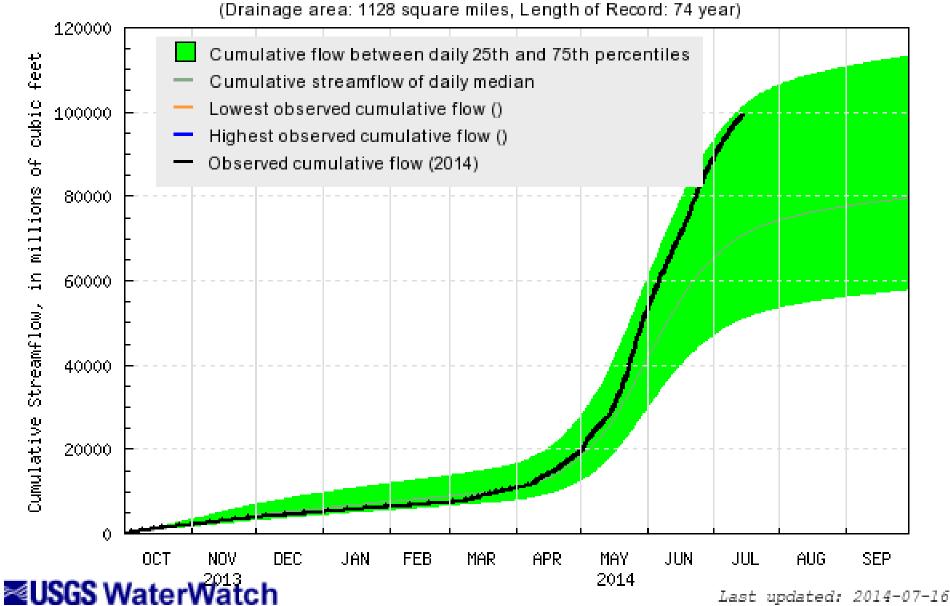


USGS 12358500 M F Flathead River near West Glacier MT (Drainage Area: 1128 square miles, Length of Record: 74 years)

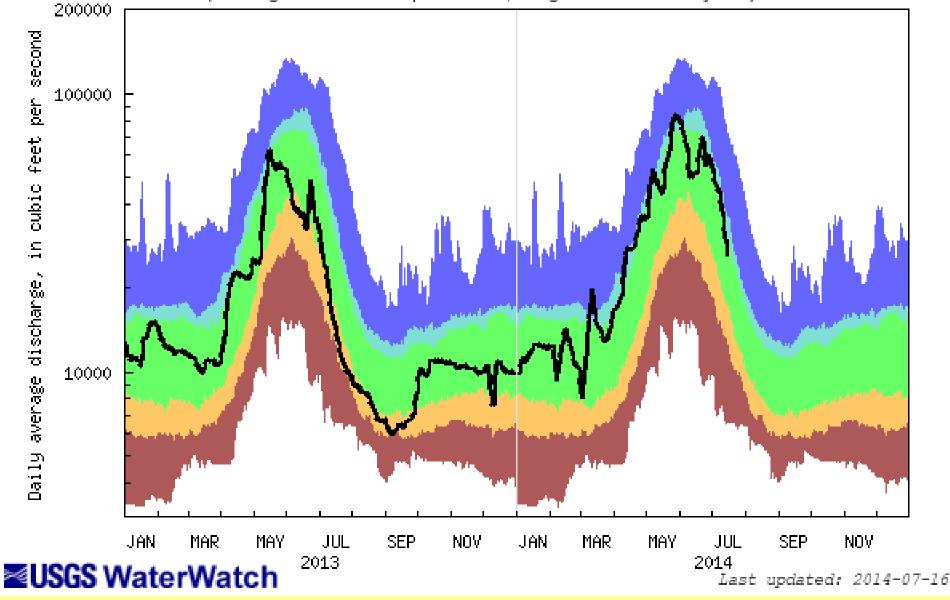


Explanation - Percentile classes							
lowest- 10th percentile	10-24	25-75	76-90	90th percentile -highest	Flow		
Much below normal	Below normal	Normal	Above normal	Much above normal			

USGS 12358500 M F Flathead River near West Glacier MT (Drainage area: 1128 square miles, Length of Record: 74 year)



USGS 12389000 Clark Fork near Plains MT (Drainage Area: 19958 square miles, Length of Record: 103 years)



USGS 12389000 Clark Fork near Plains MT (Drainage area: 19958 square miles, Length of Record: 103 year)

